

ENGLISH MEDIATED INSTRUCTION IN A UNIVERSITY
CLASSROOM: OPPORTUNITIES FOR
INTERNATIONALIZATION AT HOME

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FUNDACIÓN UNIVERSIDAD DEL NORTE

BARRANQUILLA

2016

Resumen

Esta investigación explora las percepciones y actitudes de dos profesores y sus grupos de estudiantes del Programa de Ingeniería de Sistemas, a través del uso del idioma Inglés como medio de instrucción (EMI – English as Medium of Instruction), como una estrategia para fomentar la internacionalización de la educación en casa. EMI se define como el uso del idioma Inglés para enseñar el contenido de las asignaturas en lugares donde el Inglés no es la primera lengua (Dearden, 2014). Los instrumentos requeridos para recolectar los datos pertinentes a esta investigación fueron entrevistas, análisis de documentos, observación de clases y encuestas. Los resultados presentan que tanto los dos profesores como los estudiantes que participaron en este estudio, tienen una percepción positiva de EMI, al igual que consideran que EMI refuerza el uso del Inglés para propósitos de comunicación real y al mismo tiempo les permite aprender más de la lengua extranjera y de la asignatura. Sin embargo, el estudio también pone en evidencia que existe carencia de apoyo para el desarrollo del idioma, debido a que los profesores tienden a planear las lecciones enfocadas en los temas de las asignaturas sin tener en cuenta las necesidades del aprendizaje del idioma que los estudiantes pudieran tener.

Las recomendaciones que resultaron de esta investigación sugieren que deben establecerse vínculos de colaboración entre los profesores de EMI y los profesores de Inglés, para facilitar el vínculo de idioma y contenido.

Abstract

This study explores the perceptions and attitudes of two content teachers and a group of students of a Computer Science program towards the use of English as a Medium of Instruction (EMI) as a strategy to foster Internationalization at home. EMI means using English to teach content subjects in places where it is not the first language (Dearden, 2014). Data collection instruments used were interviews, document analysis, class observations, and surveys. The results show that both the teachers and the students have a positive perception towards EMI as they consider this enhances the use of English for real communicative purposes and allows them to learn, at the same time, the professional language and content. However, it also evidences that there is a lack of support to language development as such because content teachers tend to plan their lessons around the subject topic neglecting students' foreign language needs. Recommendations resulting from this study suggest that there should be a strong collaboration between EMI and English teachers in order to facilitate content and language.

Key words: Internationalization of higher education, Internationalization at home, English Mediated Instruction, perceptions, language learning.

TABLE OF CONTENT

2. Theoretical Framework	12
2.1 Internationalization of Higher Education.....	12
2.2 Internationalization at Home	15
2.3. English teaching methods.....	16
2.3.1 English for Specific Purposes (ESP).....	17
2.3.2 Content-Based Instruction (CBI).....	18
2.3.3 Content and Language Integrated Learning (CLIL).....	20
2.3.4 English as a Medium of Instruction (EMI)	23
2.4. Beliefs	24
3. METHODOLOGY	26
3.1 Context	27
3.2 Concepts about research.....	29
3.2.1 Research paradigms.....	30
3.2.2 Research approaches	31
3.2.3. Case Study.....	33
3.2.4 Methods of inquiry.	34
4. FINDINGS	37
4.1 Semi-structured interview.....	37
4.1.1 Perception about Internationalization of Higher Education	38
4.3 Class Procedures	40
4.4. Class Observations	43
4.4.1. Class Organization.	45
4.4.2. Students' Performance.	45
4.4.3. Classroom Interaction.	46
4.5. Questionnaire	46
5. Discussion	56
6. Conclusion.....	61
7. Recommendations	64
References	66

Appendices	75
Appendix 1. Teacher's Interview	76
Appendix 2	83
Appendix 3	92
Appendix 4	102
Appendix 5	103
Appendix 6	104
Appendix 7	105
Appendix 8	106
Appendix 9	107
Appendix 10	108

Introduction

Nowadays, globalization and the world trade of services and goods have made people become aware of the importance of networking collaboratively at international level. At tertiary education level, this phenomenon has been defined as internationalization of education that according to Knight (2003) refers to “the process of integrating an international, intercultural, or global dimension into the purpose, functions or delivery of postsecondary education (p.2).

In order to network and integrate a global dimension into education, a “common language” needs to be used. Language is the instrument humans use to communicate, establish relations and interact in their community. Different factors indicate the growing importance of English language around the world. Dyer (2012) stated what the second president of the United States, John Adams, predicted in 1780 that “English will be the most universally read and spoken language”.

In the case of the internationalization movement, English has positioned itself as the lingua franca as it is a way to promote interdependence and connectivity among countries and institutions. This has also led institutions to realize the importance of preparing students and future professionals in this language.

In order to help these future professionals to become proficient in English, universities have implemented several strategies. Government and educational institutions have designed foreign language programs to support learners to achieve the goal of learning a foreign language (Usma, 2009). Besides the traditional language programs, the use of

English, as a medium of instruction (EMI) in content subjects, has become frequent. EMI means using English to teach content subjects in places where it is not the first language (Dearden, 2014). This strategy has been successfully implemented in Europe. There, it has been the subject of several research projects. In their study, Dafouz, Camacho and Urquia (2013) point out that the European Community initiated different internationalization programs to enhance higher education 25 years ago. One of those programs was the Erasmus fund, which was originated in 1987. Its main purpose was to sponsor international students' exchange among universities.

For the case of Spain, English courses were not sufficiently expanded and the English level of this country stayed behind. Only a small percentage of higher education students were able to study and work in English speaking countries. Under the light of the results, the Spanish government enforced educational policies at elementary and secondary levels in the whole country to use the Content and Language Integrated Learning (CLIL), which denotes a dual educational approach and ponders content and language objectives.

In another study, Po-yung et al (2014) established that even though, EMI has emerged in Asian countries, this phenomenon was not related to colonization or decolonization as it is seen by some European sources. The questions of their research intended to reveal how students of the University of Hong Kong perceived the importance of English as a medium instruction in terms of their career, learning, internationalization and effect on tradition and how these factors related to their university life satisfaction and academic performance.

In Latin America, EMI is a recent trend that has not been fully studied and analyzed. Although this practice is becoming more frequent, there are no formal research studies or publications on the topic and its validity in the internationalization processes. Besides, the way this strategy is implemented varies from context to context as it is basically conducted by content teachers who, in most cases, share the same mother tongue of their students. Therefore, it becomes relevant to carry out a study about how this strategy is used in university classrooms and how both students and teachers perceive its efficacy.

Colombia is not the exception and in its effort to become part of the international business arena, the National Ministry of Education (MEN) created a plan to prepare citizens in English. English language teaching and learning has been in public eyes for some time. Freeman (2013) reported that “Colombia improves English proficiency, but remains at bottom of rankings”. Education First (EF, 2015) released a report indicating that Colombia ranked 57th out of 60 countries in English proficiency. The report shows that there have been advances but these have not been enough.

In order to promote English language learning in the country, the Colombian government implemented the National Bilingual Law No. 1651 on July 12, 2013. This law modified articles 12, 20, 21, 22, 30 and 38 of the National Education Law 115 of 1994, and gave new guidelines towards bilingualism. The Colombia Bilingüe program sets some specific goals to be achieved by learners during their time in the educational system. It also allocates resources to different initiatives to promote language learning. As one of its leading educational projects, the monitoring of the program is continuous. Lizarazo (2015) indicates that according to the Ministry of Education, only 8% of high school graduates will have the B1 level – Intermediate English level.

Universities have accepted the challenge and have set two fold objectives (a) educate successful professionals and (b) implement internationalization processes to strengthen their international relations and ranking worldwide.

Most universities in Colombia want to take part of the Internationalization of Higher Education movement and they are also interested in showing their progress, sharing experiences and proposing alternatives in order to contribute to the Internationalization at Home in the country. Those higher education institutions participate in LACHEC – Latin American and Caribbean Higher Education Conference. The first conference took place in 2009 and it is developed in a different city of Colombia every year. This is the space where topics related to Higher Education and Internationalization can be discussed.

Therefore universities are working towards improving their students' English language skills as well as implementing different strategies to promote inbound and outbound mobility, joint research and dual degrees, as requirements to participate in the internationalization of higher education tendency.

Implementing EMI in content classes is a way to respond to both of the objectives above as it helps students to improve students' language skills and to make them capable of interacting with others in specific knowledge fields when participating in mobility process or completing programs in liaison with other international institutions.

This research, then, will be focused on the use of EMI in two subjects of an engineering undergraduate program in a university context. Several instruments were applied in order to identify teachers and student's perceptions and attitudes towards the use of this strategy, and the actions the content teachers performed in class.

The general question of this research paper is:

What are teachers and students' perceptions and attitudes towards the implementation of EMI as a strategy to foster Internationalization?

In that sense, the research objective is:

- To identify teachers and students' perceptions and attitudes towards the implementation of EMI as a strategy to foster internationalization.

In order to respond the main research question, it is important to reflect about the following sub-questions:

- What is the teachers' perception about the role of EMI in his subject as a strategy to foster internationalization?
- What is the students' perception about the implementation of EMI in their content class as a way to prepare him/ her to become international?
- How do participating teachers and students consider that class actions performed in an EMI class promote internationalization?

These sub-questions turn into the following specific objectives such as:

- Analyze teachers and students' perceptions about the use of EMI in their content subject as a way to promote internationalization.
- Identify how the teachers' actions foster Internationalization in an EMI class.

To facilitate the reading of this research paper, it is organized as follows:

Chapter 1: An **introduction** that describes the study and establishes the problem, the existing theoretical gap that the study will address, and the research questions and objectives.

Chapter 2: presents the theoretical framework that identifies a general conceptual framework that defines key concepts for the study.

Chapter 3: presents the **Methodology** that defines the methods and instruments used for the data collection and analysis process as well as the **context** in which the research was developed.

Chapter 4: displays the **analysis of results** obtained from the data collection process and the **findings** drawn from these results.

Chapter 5: presents the **conclusion and recommendations** to contribute to the development of the topic.

2. Theoretical Framework

In this section, influential concepts will be revised in order to have a ground theoretical basis for this research. Different visions about concepts such as Internationalization of higher education (IHE), Internationalization at home (IaH), teachers' and students' beliefs as well as language teaching methods will be reviewed.

2.1 Internationalization of Higher Education

The meaning of the term *internationalization* has constantly evolved over the last 20 years; it has been transformed to be part of a process that includes strategic activities which consider the participation of the IES community in the areas of academic leadership, administrative staff, teachers and students (International Association of Universities -IAU, 2015).

The significance of Internationalization leads to the development of quality education and research in tertiary education. It must be included as a fundamental piece of the mission of every university committed to the internationalization trend (Wächter, 1999).

The internationalization movement has brought changes in different fields; it causes the development of new curricula and programs in the educational institutions. As Bartell (2013) says the current global socioeconomic conditions have become an unexpected challenge for universities.

Globalization and internationalization terms are closely related. It is relevant to differentiate them to focus on internationalization which is the concept involved in this research. Globalization is the major phenomenon of the 21st century which affects the economic and academic areas. Internationalization embraces the policies and practices which are adopted and adapted by the different areas such as educational, political,

economic, scientific, technological and even individuals to manage the emerging academic environment (Altbach and Knight, 2007).

The constant changes in the internationalization movement have led to the modification of its objectives and the birth of new forms of internationalization, such as university branches in other countries or distance learning programs that integrate traditional study with mobility trends. Internationalization is a gear that assembles many components in different areas; the IAU (2015) classifies this structure in the following five spheres.

- Academic mobility
- Internationalization at home, of the curriculum, and learning outcomes
- Internationalization of research
- Borderless, offshore, transnational and cross-border education
- Development cooperation and capacity building

It is important to review what other research studies have said about IHE, De Witt (2002) and Delgado, and Hurtado and Bondar (2011) agree IHE is not a new trend and they also coincide mentioning the problem researchers and practitioners might have when investigating about internationalization due to the different terms related to this topic through the years, such as academic mobility, international cooperation, study abroad, and international exchange. Those terms reflect the evolution of this phenomenon and the importance and acceptance this trend has gained in the Educational field as well as in the economic, politics and cultural areas.

The importance of the term *internationalization* has been mentioned in political and economic spheres, thereupon, governments are expected to educate their peoples to foster the country's progress. Nowadays, universities and higher education institutions have created international links to guarantee a position in the internationalization tendency and offer students possibilities to study abroad. All these practices are expected to contribute to the nation's competitiveness.

Egron-Polak (2012), states that Internationalization of Higher Education has demonstrated rapid augmentation in the last decade that emphasizes the following approaches: "Cooperation among the higher education institutions, offering international students access to programs which are not available in their regions, higher education alliance of solidarity related to economic and geopolitical goals, higher education collaboration as the quest of soft diplomacy and economic competitiveness, a search for variety of views and worldviews, to a search for similar institutions in "terms of prestige and status in rankings" (p.1) so institutions can enhance one's status.

It is visible that the internationalization of education is a trend that over the years has increased the massive participation of educational institutions and has become a goal for many college students to have the opportunity to pursue graduate programs abroad. However, there are factors that prevent the achievement of this goal. Factors such as the number of institutions that have adapted their curricula to the internationalization demands to promote student mobility, is one of them, especially in Latin America. That is why some institutions have implemented internationalization strategies that do not require mobility. This is what is called Internationalization at home. This concept will be discussed in the next session.

2.2 Internationalization at Home

According to the IAU Annual Report (2015):

“The intentional process of internationalization is not a goal in itself, but a means to enhance quality, and that it should not focus solely on economic rationales but serve a more meaningful purpose in society...internationalization has to become more inclusive and less elitist by not focusing predominantly on mobility but more on the curriculum and learning outcomes” (p.10).

Therefore, universities around the world are redesigning their curricula to promote academic out and inbound mobility and recruitment of international students.

Higher institutions are also aware of the significance of adapting internationalization practices and strategies to include key elements that enhance social, cultural and international competences in the classrooms. This demands from institutions not only the internationalization of the curricula but teacher educational programs, research on local culture and different communities in their own region and country, diversified assessment practices among others. This also includes the familiarization and learning with languages different from the mother tongue as students are expected to appreciate the relevance of learning a foreign language to transmit their experiences and discipline related knowledge to the new cultures.

This means that institutions are now moving towards the Internationalization at Home (IaH) movement that according to Crowther et al. (2000) can be defined as activities intended to develop international and intercultural skills and competences in the institution community that can be implemented in situ making use of the available resources. This means that these activities are expected to develop an international vocation and vision in students and academic staff that will not travel abroad.

Although, there is no regulated procedure or mandatory structure to internationalize the curricula or to design international programs, we can find the following strategies to foster IaH: multicultural and inclusive education, foreign language learning, and the development of an understanding towards diversity. These strategies and activities are expected to develop global competences without moving out of peoples' own country.

Also, the IAU (2015) states that the American Council of Education defines four levels of intervention: Individual courses, academic programs components (major, minor, and certificates), degree programs and disciplines as a whole. These four levels of intervention are vital tools to promote the development of international competences.

Most universities in Colombia are willing to participate in the internationalization movement and they also intend to share their progress and experiences. Also they want to propose alternatives in order to contribute to a better development of the process of Internationalization at Home. Promoting foreign language learning is one of the practices these institutions implement in order to prepare their students for the global market.

However, academics have realized of the importance of preparing students to use the language not only for social and cultural exchange but also for scientific and discipline related research. That is why the learning of the foreign language is now being supported through different teaching methods that are expected to provide students with language and content competences. This is the topic of the next session.

2.3. English teaching methods

In order to understand the role of foreign language learning in the Internationalization at Home process, a revision of the most salient English teaching methods that promote learning of the language and the content will be presented. These

methods were chosen because of the integration of specific content and language to deal with the specific content.

2.3.1 English for Specific Purposes (ESP)

ESP is a learner centered approach that takes the learner's language and learning needs into account to design the curriculum and materials. It is generally applied to adult and secondary education since the 1990s. ESP involves educational and professional needs based on the language user's activities (Duddley, 1998).

Duddley (1998) lists the following absolute and variable characteristics of ESP.

• Absolute characteristics of ESP	• Variable characteristics of ESP
<ul style="list-style-type: none"> ➤ ESP is designed to meet specific needs of the learner. ➤ ESP makes use of the underlying methodology and activities of the disciplines that it serves. ➤ ESP is centered on the language appropriate to these activities in terms of grammar, lexis, register, study skills, discourse and genre. 	<ul style="list-style-type: none"> ➤ ESP may be related to/or design for specific disciplines. ➤ ESP may use, in specific teaching situations, a different methodology from that of General English

Table No.1

Also Duddley (1998) defines the following five key roles of an ESP teacher.

1- Teacher	Teach language and language skills (listening, speaking, reading and writing). Have students develop communicative strategies. Be aware of the way disciplines or professionals Make use of language in their activities.
2- Course & material designer	Responsible for selecting teaching material, adapting material or writing material when no appropriate material

	exists.
3- Collaborator	Keep in contact with subject teachers and professionals in the world of work to plan and prepare better classes and immerse learners in the academic and professional language use in the real context.
4- Researcher	Find out the effectiveness of the course during its development and what additional aspects should be included. ESP Practitioner needs to be informed about the research being published, especially in the journal English for Specific Purpose.
5- Evaluator	ESP learners need be tested during and at the end of the course to achieve the good mastery of English required by the academic course. A number of international validated tests evaluate undergraduate and postgraduate English levels and students potential for studying in English.

Table No.2

The ESP approach reflects the commitment of the teacher to have learners involved in a flexible learning process. This flexibility allows teacher and learner to focus on language needs in order to modify and adopt the curriculum to schematize the progression of the learning process in order to include the relevant steps to integrate language skills, teaching material as well as learning and communication strategies. The combination of those elements is required to acquire language knowledge and build language confidence which is essential aspects to participate in the internationalization of higher education.

2.3.2 Content-Based Instruction (CBI)

CIB has been widely used in Canada and the United States in the recent years and has spread to others countries around the world (Dueñas, 2004). Its main purpose is to have

students immersed in the development of language communication skills through the study of specific content. This means that the language becomes the tool to learn the content and the content becomes a resource to practice and increase the language knowledge. CBI, then, empowers a dual commitment to language and content learning (Stoller, 2002).

It is important to highlight that the CBI teacher integrates curriculum and language, and learners are exposed to the continuous development of language communicative skills, since they have to listen, speak, read and write in the target language. Grabe and Stoller (1997) suggest the following seven benefits of CBI:

- a. CBI deals with understanding and practicing a foreign language while learning the content, both teacher and student scrutinize the content; however students are also involved in language-dependent activities. The resulting language learning activities display the practice of natural and significant exercises.
- b. CBI reinforces contextualized learning and students use the language in relevant discourses. CBI permits explicit language instruction connected with content instruction in a relevant and purposeful content.
- c. CBI favors students to use content knowledge and experience in the classroom, the consistent content recourses encourage the call on prior knowledge to learn more about the language and content.
- d. CBI promotes intrinsic motivation among students meanwhile they are immersed in the complex information and meaningful activities that contribute to the augmentation of knowledge on the topic.
- e. CBI offers adaptability to design flexible curricular and activities, it also supports cooperative learning, experimental learning, apprenticeship learning and project based

learning. Moreover, CBI provides strategy instruction and practice that can be recycled to reinforce content and learning task.

- f. CBI permits teachers to adapt sub-topics and activities into the curricula according to teacher and student's needs and interest.
- g. CBI supports student-centered classroom activities. In CBI classrooms students have the opportunity to select and exercise in relation with particular content and learning activities which increases student's involvement in topic selection and activity participation.

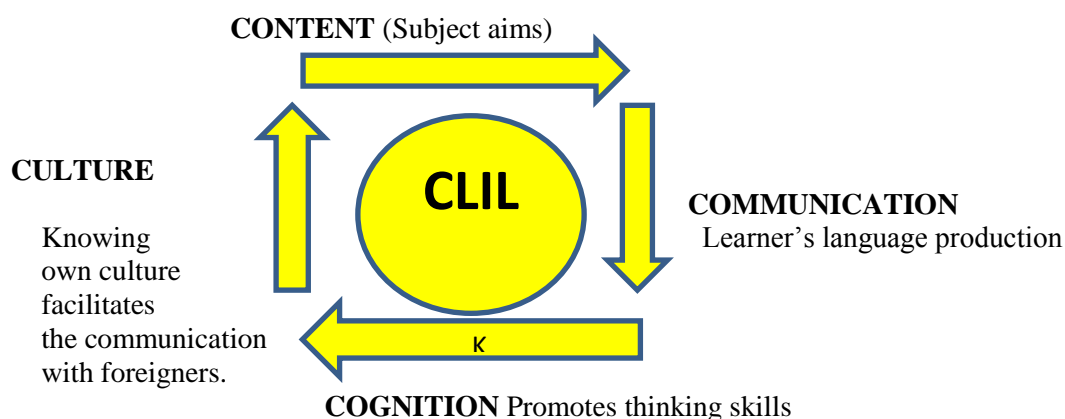
In CBI contexts, students support their learning on their prior knowledge of the language. The instruction process recycles a variety of strategies and activities while bringing together content and learning tasks. The language and content integration addresses students to a better comprehension of the subject content via the English language practice. This shows that grasping the knowledge by English practice is more relevant than the internal/external strategies the individual applies to process the information.

2.3.3 Content and Language Integrated Learning (CLIL)

For some academics, this approach is the European version of CBI. However, it is important to include it in this review as a way to have a more complete panorama of the methods.

CLIL emerged in the 1990's as an umbrella term covering a variety of methods of learning in which language supports the learning of subject content (Martinez, 2011). It is also known as a dual learning method which integrates content and language to involve the learning of a language while developing the curriculum of a subject.

Lesca (2012) recognizes four important components of the CLIL approach which are explained in the following graph.



Graphic No.1

Six core features are also remarked on Lescas' study (2012). These features are: multiple focus approach, safe and enriching environment, authenticity, active learning, scaffolding and cooperation.

In addition, the CLIL lesson plans comprise the following stages specially designed to perform target activities:

- Checking previous knowledge.
- Practicing content language.
- Expanding vocabulary.
- Consolidating knowledge.
- Summarizing skills.
- Applying the new knowledge.
- Checking and correcting errors.

The European Framework for CLIL Teacher Education (n.d), states assessing is a significant part of this approach, in which the teacher needs to be able:

- a. To articulate CLIC-specific assessment needs and goals and to develop and implement related assessment tools.
- b. To identify what learners already know.
- c. To guide learner reflection on previously agreed upon content, language and learning skills, goals/outcomes, achievements.
- d. To guide learners in using portfolio-based approaches as tools for fostering learning, teaching and assessment.
- e. To use formative and summative assessment strategies to support content, language and learning skills development.
- f. To use benchmarking in supporting progress in learning.
- g. To introduce the concepts of self-assessment and per-assessment to support learners in taking great responsibility for their learning.
- h. To detail the pitfall of assessment and propose ways of circumnavigating these.

In sum, CLIL is a more condensed approach which pursues the active interaction between teachers and students through the acquisition of knowledge and the command of a foreign language. Integrating content and language learning gives teachers a huge responsibility as they have to design curricula, select resources and materials, create assessments, and conduct research, among others. They also have to identify possible difficulties and find effective solutions to overcome constraints into the teaching and learning process.

2.3.4 English as a Medium of Instruction (EMI)

This last approach refers to the use of the English language to teach academic subjects in places where English is not the first language. In this approach, the learning of the language is not a stated objective; the content is the real one. That means that teaching and learning focus, mainly, on acquiring knowledge and not on learning or practicing language skills.

The globalization and Internationalization movements have positioned English as the predominant language around the world; therefore it is reasonable that universities and higher education institutions offer EMI classes to attract more international students to their campuses. During the last years, EMI has been applied and studied in different non-English speaking countries, where governments recognize the necessity of English communicative skills and support EMI as the foreign language learning approach to prepare English proficient professionals to compete in the international market (Lueg & Lueg, 2015).

Consequently, since the 1990s, it has been noticed that many countries have responded to a surging English language participation in science, business, and diverse professional spheres, there upon English started to be implanted in the curriculum in different countries, from pre-school to tertiary education (Marsh, 2006).

According to the British Council (2014), EMI seems to be a very common approach in secondary schools and universities and even in primary schools. Additionally, some of other reasons to offer EMI courses in universities seem to be promotion, globalization and financial survival.

There are also some constraints reported in the British Council report (2014) among which we find rejection from some countries determined to maintain the home language as the language of instruction, lack of teaching resources, not very good command of the language by the students and teachers; and political reasons to reverse EMI. That was the case in Hungary where the government said that EMI was expensive and it only affected a small amount of students as not all teachers were able to teach using EMI.

In Colombia, the situation is more related to the language level of students, the capacity teachers have to teach their subjects in English and lack of resources. This approach is more used in private top universities where both teachers and learners have the conditions needed to implement it, and they also have a higher number of inbound mobility as well as a higher number of international agreements.

EMI is an very used approach in universities around the world. EMI is attracting researchers to study its impact and effect on English learning and teaching in the different programs. Some researchers see EMI as the way universities recruit foreign students to increase institutional profile and support multilingualism (Defouz, Camacho and Urquia, 2013). EMI is not only becoming a broadly educational practice but also demands thoughtful research initiating from various points of views or perceptions, such as learning and teaching practices (Smit and Defouz ,2012).

2.4. Beliefs

EMI is related to IHE, due to the curricular modifications or adjustments that have to be done in order to use English in the class. It promotes students and teachers' participation in cultural or educational exchanges to learn and/or teach the subjects in this target language. Moreover, EMI provides flexibility to adopt curricula according to content

and students learning needs. In other words, the teachers are responsible to making many changes to their regular practice. This includes lesson planning and syllabus organization among others. However, there is an important fact to point out and study and that is how both teachers and students perceive the role of the EMI classes in their teaching and learning process and how this prepares students for their future professional fields. Do they consider this approach is necessary and needed?

These beliefs can affect both teachers and student's appreciation of the EMI experience as Stevick (1980, p.4) states "success depends less on materials, techniques, and linguistic analyses, and more on what goes on inside and between the people in the classroom." Beliefs can affect success in the learning and teaching situation as people come to the class with some pre-conceived ideas of what is going to happen. In a new situation such as an EMI class, these preconceptions affect greatly the results of the learning experience.

But what are beliefs? Puchta (1999) said that beliefs are "guiding principles" of people's conducts. According to him, beliefs are "are generalizations about cause and effect, and influence our inner representation of the world around us. They help us to make sense of that world, and they determine how we think and how we act" (pp. 68-69). This implies that both students and teachers have own interpretations and understandings of the EMI experience based on their existing knowledge and experience. The result of this interplay between preconceptions and new experience can have either positive or negative results. Some other definitions of beliefs come from Cabaroglu and Roberts (2000) who said that beliefs are "a set of conceptual representations which signify to its holder a reality or given state of affairs of sufficient validity, truth or trustworthiness to warrant reliance upon it as a guide to personal thought and action" (p. 388). Also Peacock's (2001) defined

the term as “psychologically held understandings, premises, or propositions about the world that are felt to be true” (p. 178). In general terms, beliefs are considered subjective and based on peoples own judgement. For this study, beliefs will be understood as preconceived ideas about learning be it language or content.

There is also an extra element and that is the teachers’ English language proficiency as if learners notice the teacher lacks language knowledge, the learner’s perception could be that the teacher is not competent linguistically, academically and pedagogically (Jensen, Denver, Mess, Werther, 2013). It seems teacher’s language proficiency adds credibility; constant errors made by a teacher in the classroom centers learner’s attention on teacher’s speaking skills more than on content message. Learner’s expectations about EMI teachers are high. They think EMI teachers are language skillful and content experts, important points to have into consideration when selecting EMI teachers to teach in university classrooms. According to Uys, Van der Walt, Van den Berg & Botha (2007) recommend that “the linguistic, methodological, and presentational skills required for effective English medium of instruction should be standardized to enable training institutions to design appropriate training courses” (p. 78).

Beliefs affect greatly what happens in the class. The success of a learning teaching experience is highly mediated by these preconceived ideas that teachers and students have about the EMI experience.

In summary, the concepts expressed in this theoretical review gave support to face the research task and helped the researcher established a professional positioning towards the implications of the study.

3. METHODOLOGY

In this section, the process to collect and analyze data for the study will be presented. Also, the research methodological decisions will be described including the rationale behind the selection of the research approach, paradigm and method.

3.1 Context

As a starting point, the context in which the research took place is presented. This research was developed in two subjects of the Computer Science Engineering program in a private university in Colombia. The study took place in the 5th and 6th semesters where these subjects are taught in English as students are expected to have already attained the appropriate English level to learn content. Besides, these classes are offered in this language to give room to international Engineering students in this field that come through mobility agreements the university has. The institution also offers students opportunities to access to international exchange programs in ninth semester.

There is a mix of English Levels in these EMI classes. A minority of students consider their English level is not the right one to take the class and find it as a major constrain. On the other hand most of the students are able to listen, read and express in the target language. There is a teacher-students gap which must be overcome, and teachers do not apply any diagnostic English Knowledge test at the beginning of the course in order to measure student's English skills and to plan English improvement strategies to scaffold the low level students along the course.

The university counts with comfortable and modern classrooms where teacher has the necessary tools to teach the class, students have access to the library, web catalogue, laboratory, in addition teacher and students use a textbook that is published both in English and Spanish.

This research took place in the following subjects: Digital Design (5th semester) and Data Base (6th Semester). The Digital Design Class had nine male students. This class was scheduled twice a week, 2 hours each day, for a total of 4 hours a week. The Data Base Class had four female students and 14 male students. This class was scheduled twice a week, 2 hours each day for a total of 4 hours a week.

Both EMI teachers have doctoral degrees from universities in English Speaking countries meaning that both their knowledge of the language and the content was appropriate. This is also one of the requirements to teach an EMI class in this program. They are engineers and not teachers and have no background related to language teaching.

This experience raised some questions which can be found below.

Research question: What are teachers and students' perceptions and attitudes towards the implementation of EMI as a strategy to foster Internationalization?

This question led to the following objective:

Research objective: To identify teachers and students' perceptions and attitudes towards the implementation of EMI as a strategy to foster internationalization.

In order to respond the main research question, it is important to reflect about the following sub-questions:

- What is the teachers' perception about the role of EMI in his subject as a strategy to foster internationalization?

- What is the students' perception about the implementation of EMI in their content class as a way to prepare him/ her to become international?
- How do participating teachers and students consider that class actions performed in an EMI class promote internationalization?

These sub-questions turn into the following specific objectives such as:

- Analyze teachers and students' perceptions about the use of EMI in their content subject as a way to promote internationalization.
- Identify how the teachers' actions foster Internationalization in an EMI class.

3.2 Concepts about research

It is worth mentioning Kothari's (2004) idea of research as a search for knowledge.

It can also be defined as a scientific and systematic search for pertinent information on a specific topic. Creswell (2012) states it is a process in which researchers engage in a small sections of logical steps to collect and analyze information to increase understanding of a topic or issue. It can be inferred that research is a process with several levels which leads the researcher to the escalation of knowledge on a specific area or topic.

Besides, Kemmis & McTaggart (2000) define "research typically involves the use of quality interpretive modes of inquiry and data collection by teachers (often with help from academics) with a view to teachers making judgments about how to improve their own practices" (p. 273). That is to say, teachers follow procedures to examine the records about performance and mending the teaching exercise.

This study is defined as a Qualitative Research, Creswell (2012) states that "Qualitative research is best suited to address a research problem in which you do not know the variables and need to explore" (p.16). Researcher needs to explore the problem and learn from the participants by using the adequate tools to collect data in order

to obtain the participant's views and report the analysis from a subjective perspective. The qualitative research process permits researcher to be in contact with participant while applying interviews, surveys and observing the student-teacher's interaction in the real research context.

3.2.1 Research paradigms

In conducting a research, it is important to understand what a research paradigm is. Guba and Lincoln (1994) stated the term paradigm is defined as "Basic belief systems based on Ontological, Epistemological and Methodological assumptions" (p. 107). It could be said that paradigms lay the foundations which lead human beings to behave following certain patterns of action.

The different types of paradigms are:

- Positivism: experimental testing.
- Post positivism: a view that we need context and that context free experimental design is insufficient.
- Critical Theory: ideas in relation to an ideology – knowledge are not value free and bias should be articulated.
- Constructivism: each individual constructs his/her own reality so there are multiple interpretations. This is sometimes referred to as interpretivism.

This research leads to the constructivist paradigm. Creswell (2003) states that through this paradigm the researcher focus on the individual's appreciation of the world, the researcher also intends to reveal the participant's interpretations of the phenomena being studied, these require the attentive usage of data collection instruments in order to obtain information from real interaction among the participants.

Interviews, surveys and observations are prevailing tools in this paradigm, which are implemented with the intention to construct reality in the research process through the interaction that connects investigator with the participants (Lincoln & Guba, 1994).

3.2.2 Research approaches

Creswell (2012) clarifies that “conducting educational research is more than engaging in the major steps in the process of research. It also includes designing and writing the research in one of the two major tracks: quantitative research and qualitative research” (p. 11). The researcher needs to decide which track to follow in order to design the appropriate elements to conduct the research.

The problem, the question, the questions and the literature reviews help to steer the research toward either the quantitative or qualitative track. To understand each one of these research tracks it is necessary to identify their characteristics, similarities and differences.

Different research approaches and methods have become popular at different, social, political, historical and cultural times. Dawson (2007) said that all methods have their specific strengths and weaknesses, which should be acknowledged and addressed by the researcher.

The main two research approaches are the qualitative and quantitative. Dawson (2007) clearly explains about qualitative and quantitative research. Qualitative research explores attitudes, behavior and experiences through such methods as interviews of focus groups. In this type of research, the contact with people has significant meaning since the contact with people allows the researcher collect in-depth opinions from participants.

Quantitative research generates statistics through the use of large-scale survey research, using methods as questionnaires or structure interviews. In this type of research

the researcher have contact with many more people in a quicker way to obtain particular information.

It is relevant to remark the similar and differing aspects between qualitative and quantitative research. Among the similarities, we can find:

- Both forms of research follow the six steps in the process of research.
- Data Collection Procedure. Both quantitative and qualitative data collection may employ similar approaches, such as interviews or observations.

Knowing the different aspects between qualitative and quantitative research will support the good development of the research, the following are the differences:

- The research problem, in the quantitative research is used to direct the type of questions or hypotheses asked in the study.
- The research problem, in the qualitative research, is typically used to establish the importance of a central idea.

In the data analysis the procedures are quite different. In the quantitative research, the researcher relies on statistical analysis of the data, which is typically in numeric form. In qualitative research, statistics are not used to analyze the data; instead the inquirer analyzes words or images.

Following with the process to develop a well-organized research it is crucial to select a suitable methodology. Dawson (2007) suggests the understanding “the five Ws” is key to decide the suitable methodology to collect the data for the research.

- What is the research about?
- Why does the researcher want to do the research?
- Who will be the participants?
- Where is the researcher going to conduct the research?

- When is the researcher going to do the research?

Knowing the answers to all the above questions will help the researcher to organize the research project and decide the most suitable methodology to lead the investigation.

For the purpose of this study, a qualitative approach will be used because it will focus on student and teacher's attitude, behavior, opinions towards EMI in university classroom, which implies the application of interviews, surveys and observations, and all these require the researcher to be immersed in the investigation context. Therefore it is important to become familiar with the different qualitative methodologies available for the present study.

3.2.3. Case Study

Case study is one of the research methodology which facilitates the usage of different tools to have the researcher interacts directly with the participants. Stakes (1978) believes that "case studies are useful in the studies of human affairs because they are down-to-earth and attention-holding but they are not a suitable basis for generalization (p.5)." Equally important is the definition stated by Yin (2004) "case study research is not limited to a single source of data, as in the use of questionnaires to carry out a survey study. In fact, good case studies benefit from having multiple sources of evidence". (p. 9). According to Robson (2002), a case study is "A strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence (p. 178)". These authors remark that case study offers the usage of multiple sources to collect data from the real context which facilitates the researcher can be present while collecting information directly from the participants and observing the events in the real context.

Case study is the methodology to be applied to answer the main question of this research: What is the relationship between engineering teachers and students' perceptions and EMI as a strategy to foster Internationalization at Home? Three main data collection techniques are used to gather meaningful information and reinforce the reliability of the results; these are interview to teachers, questionnaire to students and class observations.

3.2.4 Methods of inquiry.

According to Dawson (2007), the research methods help researchers to use the appropriate tool to collect the relevant data, in this particular case study, it is essential to explore beliefs and attitudes, therefore the most suitable techniques selected are:

- Semi-structure interview
- Questionnaires
- Class observation

The Semi-structured interview is the most common type of interview in qualitative social research. Through this tool, specific information which can be compared to the data collected through class observation will be obtained. Also called in-depth interviews and sometimes called life history interviews. The researcher attempts to achieve a holistic understanding of the interviewees' point of view of a situation. It is called semi-structured because the interviewer has a set of general ideas to use in questions but not pre-established questions as such to be answered by the participant. In this study, the interview was used with the EMI teachers and the Computer Science Department Director. Setting appointments with teachers and the Director of the program was vital to listen and understand their point of view about the different aspects of their English teaching. Each participant allowed a 27 to 30 minute interview which was recorded and transcribed accordingly. (Appendices No. 1, 2 and 3)

Questionnaires were also used in this study. They were applied to participant students. Students answered the questionnaire at the end of the last class observation. The benefit of questionnaires is that they allow the researcher to collect data from a higher number of participants in less time. (Appendix No.10)

There are three basic types of questionnaire – closed-ended, open-ended or a combination of both. Cohen, Manion & Morrison (2007) state that the layout of a questionnaire is vitally important. Questionnaires must appear easy and interesting to answer, they must have clear instructions, simple design, and they must also include examples of how to answer the questionnaires, such as ticking a box or circling a statement.

Close-ended questionnaires used to generate statistics in quantitative research. These questionnaires follow a set format, and as most can be scanned straight into a computer for ease of analysis, greater numbers can be produced. Open-ended questionnaires are used in qualitative research, although some researchers will quantify the answers during the analysis stage. This type of questionnaire leaves a blank section for the respondent to write in an answer. Whereas closed-ended questionnaires might be used to find out how many people use a service. As there are not standard answers to these questions, data analysis is more complex. Fewer questionnaires need to be distributed.

This study demanded questionnaires with both open and closed questions, a series of closed questions, with boxes to tick or scales to rank can be found. Most of the times, they end up with a section of open questions for more detailed response.

Observation was also another instrument used to collect data in this research study. There are two main ways in which researchers observe: direct observation and participant observation. Direct observation tends to be used in areas such as health and psychology. In participant observation, however, the researcher becomes much more involved in the lives

of the people being observed. This observation can be viewed as both a method and methodology. It can be a valuable and rewarding method for qualitative inquiry. For the case of this study a direct observation was implemented. Four hour classes a week were scheduled to apply the observation, two hours each section per subject, Data Base class and Digital Design class. Teachers managed to cover a unit in four hours. The following table summarizes how the different methods of inquiry were implemented in this research.

Method of Inquiry	Class	Participants	Time: Per week
Semi-structure Interview	Data Base	Teacher	27 minutes
	Digital Design	Teacher	20 minutes
		Program Director	25 minutes
Observation Questionnaire (st)	Data Base	Teacher 18 Student 15 students	4 hours
Observation Questionnaire (st)	Digital Design	Teacher 9 Students 9 Students	4 hours

Table No.3

4. FINDINGS

In this chapter, a detailed analysis of the results obtained from the data collection instruments applied is presented. The findings will allow to portrait the implications of using English Mediated Instruction (EMI) in university classrooms, how EMI impacts learners' attitude towards English learning and the actions teachers do in promoting students' content and language learning. The perceptions of teachers and students will also be described.

4.1 Semi-structured interview

Semi-structured interview was a trustworthy tool to be used in this research. Regarding an interview, Kvale (2006) remarks, "The interviews give voice to common people, allowing them to freely present their life situations in their own words, and open for a close personal interaction between the researchers and their subjects" (p.3). This tool allows interviewees express their relevant point of view about a specific subject which leads researchers to be more immersed in the context.

The implementation of this instrument required the design of an eighteen question interview to be used with, one Digital Design teacher -5th Semester and one Data Base teacher -6th Semester (appendices No.1 and No.2). The Director of the Computer Science Engineering Program collaborated with another interview for this study (appendix No.3).

The semi-structured interview is a valuable instrument to identify teacher's perception towards EMI and the different factors that they consider not only important or beneficial but also troublesome or difficult through using English to teach a subject in this program. Results were organized in categories such as perceptions towards internationalization of Higher Education, class procedures and class observation.

4.1.1 Perception about Internationalization of Higher Education

The three faculty members interviewed have similar perceptions about the internationalization of Higher Education (IHE) movement at the university. They recognize the increasing relevance of being part of such a process as well as the necessity to include subjects taught in English in the program curriculum. Teachers have made students aware of the necessity of learning English and the benefit it would have in their professional future.

Students have to acquire a good English level, it is not just to learn basic survival phrases, for instance to order a hamburger. Therefore we decided to find some courses in the undergraduate program which could be taught by professors who had bilingual experience. (Computer Science Department Director)

Those words show that having students experience a content subject in English may help them develop skills to be used in contexts where English is used. As regards the Internationalization at Home, they consider that offering content subjects in English in their curriculum of the program is a good way to develop international competences in students. They also made explicit to their students the necessity to learn English and the benefit this would have in their future professional life.

I understand that the university or the Engineering program is within associated groups, with the purpose that there may be student's mobility at international level, either local students can study in other university or foreign students can come and study in this country. (Teacher 1)

Teachers are informed that the university has created alliances with

international institutions in order to offer local and foreign students the opportunity to participate into the mobility trend.

English subjects started in this program two years ago, when people from an international company, which deals with network counseling, visited the university and made the administration of the program notice that most companies demand for bilingual professionals. Then when we talked about the student's profile or the type of professional they were looking for, the first characteristic they mentioned was he/she has to be bilingual and added that the technical matter will be solved by them. (Computer Science Department Director).

One of the main requirements to become a teacher in this department is to have a graduate diploma from a university in an English Speaking country. Teachers who had the opportunity to study abroad become real examples of the importance of learning a language to open doors to the possibilities to study in an international university and obtain graduate degrees.

Qian (2003) says that “academic and professional requirements for graduates increasingly reflect the demands of the globalization of societies, economy and labor markets and thus higher education must provide an adequate preparation for that. These requirements include not only academic and professional knowledge, but also multilingualism, and social and intercultural skills and attitudes (p.248).” This quote reflects the mechanics the university is following to assure its graduates are well prepared.

It is essential to remark that in this program, fifth semester students are considered able to take an English subject. It is supposed that students of fifth semester have

considerable background English language knowledge to attend, understand and participate in an English subject class. It is important to say that students need to take language classes if they don't have a B2 level of the language when they start their majors. They are supposed to be in the 5th level of the English program by the moment they take these subjects. In this level, students are constantly exposed to the target language and practice the four language skills (listening, reading, speaking and writing). Students are exposed to academic texts and are prepared to write short academic papers about specific topics. They are also prepared to make oral presentations and participate in class discussions. It has been noticed that 5th and 6th English level students still need support in their language development. This means that facing a content class in this language can be a challenge for them.

In sum, the interview revealed that the English teachers of the Computer Science Engineering Program are aware of the IHE trend and integrate some strategies to promote international competences in their teaching process by preparing material in the target language and using English language to teach the class. However, on the other hand, teachers do not include any kind of support to language development.

4.3 Class Procedures

In the interviews, teachers said that they are aware of their role and consider they make autonomous decisions when planning their EMI lessons. That is to say that the university does not have specific guidelines to be followed for classes where English is used as the means of instruction. For them, teaching a class in English is not different from doing the same in Spanish. According to them, there are no rules or a designed structure to follow in order to teach their content subject in English. They indicate that they do not

share strategies or experiences of their teaching process among other EMI teachers from the same academic division or other.

They make independent decisions about the class materials they provide students with and select textbooks that can be found in both English and Spanish. The teachers tend to use visuals to support their teaching. The evaluation and feedback are provided in English, however students are allowed to use Spanish to ask questions or participate in class. Sometimes, students negotiate what topics can be taught in English or Spanish with the teachers. This flexibility is highly valued by students and normally happens when there are no international students in the class.

It is not important to teach them in English but it is important people understand, and if that means to teach a topic in Spanish, it is taught in Spanish. In that case I think understanding the topic is much more important than the language. (Teacher 2)

In relation to the previous point of view, the British Council Report (2014) states EMI could be contentious and create unfairness, since not all teachers are competent to teach in English and students may struggle to comprehend in English

Teachers argue that learning the concepts of the subject is more important than learning the target language, since they are not language teachers, they do not consider pertinent to correct errors students may make when using English, but they do value the student's attempt to communicate in the target language. In spite of the fact that in both classes, teachers notice some students do not have enough English skills to comprehend all the concepts of the subject, they do not make any changes in teaching the same topics either

in Spanish or in English. Marsh (2006) says “There has also been a distinct lack of discussion between educators responsible for diverse contexts where the medium of instruction acts as a barrier or as some form of challenge, in the classroom” (p. 30).

On the other hand, students must take these subjects in English; there are not the same Spanish subjects for these semesters in this program. At the beginning of the semester, some students let the teacher know if they are not comfortable with using English in the class. In some cases, some classes have insisted to change the language and use only Spanish. In those cases, the EMI teacher presents the situation to the director and they make the decision about the language of instruction for that subject.

Teachers talk to me in advance, they let me know if there are some students who are not comfortable with these English Subjects and they report if the students' results are good, due to this is an only group, we do not have another option. There are times, such as this semester, in which students asked to have a specific subject in English (Computer Science Department Director)

The previous situation has been encountered by EMI researchers, Marsh (2006), pronounces “If the use of English as medium of instruction creates a ‘language problem’ then it is necessary to find solutions which are workable in the classroom (p. 31).”

It is equally important to mention the factors in which the teachers differ. Even though the three teachers have a graduate degree in an English speaking country, two of them expressed they are not comfortable with teaching the subject in English the whole period. One of them seems to take language turns to teach the subject according to the complexity of the topic. The number of students is also an influential variant. The Data Base class had four female students and fourteen male students for a total of eighteen. The

Digital Design class had only nine male students in total. It is much easier to negotiate with students in smaller classes and there is always the chance to repeat or clarify concepts as needed. On the other hand, in a larger class time could not be enough to repeat explanations or to notice any difficulty a student may encounter while trying to solve a class work. It can be explained that there is no compulsory integration of language and content. Language can be negotiated according to the complexity of the topic. Teachers are willing to facilitate students' understanding by switching the language and using the native language to ensure a better comprehension of the content which is the priority of the class.

4.4. Class Observations

The distinctive feature of observation as a data collection instrument is that it offers the investigator the opportunity to gather 'live' data from naturally occurring social situations, Cohen et al (2007). This data collection instrument granted to experience the accounts in the classroom while observing students' attitude and performance; moreover teachers' actions in the classroom could be compare to what they answer to the interview.

It was also necessary to design an observation format in order to record the events and actions during the class progress, (appendix No.4 to No.8). Eight hours of observation were planned and agreed with the teachers. The Digital Design and Data Base classes were observed during the same week, 4 hours for each class. Teachers were previously informed that they were to be observed and they prepared their classes to cope with a complete topic during the four hours of the observation. The purpose of the observations was to witness the use of EMI in these classes. The following table describes the observation process.

Method of Inquiry	Class	Participants	Time Per week
Observation	Data Base	Teacher 18 Students	4 hours
Observation	Digital Design	Teacher 9 Students	4 hours

Table No.4

It was easily noticed that both teachers used English language during the class period. The target language was used to introduce the topic, solve exercises on the board or give explanations about the topics which mostly were displayed in power point presentations, check comprehension through questions. Similarly, the target language is used on the visual aids including graphic representations, and charts. The teachers also mentioned the use of special computer program for the class that is used during some extra practical hours.

English language is used by most of the students in the classroom. There is a minority of students who prefer to use Spanish to ask questions or to address any concern to the teacher. Teachers' actions and performance showed they plan and prepared the lesson carefully with appropriate class materials and rehearsed discourses to have control of the language while developing the themes in the classroom.

Considering teachers use the target language in order to lead students to understand and manage the content can be seen as a way to foster IaH. Furthermore, the fact that teachers use English in class, design evaluations and give feedback in this language may mean that they do this as a strategy to reinforce the language development so students improve their language skills. T1 and T2 use variety of strategies to convey the content and have students grasp it. They even have textbooks to support their learning which includes glossaries to prepare in advance (Appndix No.4 to No.8).

However, it is clear that as language issues are not directly addressed, some language learning opportunities are missed. If there were some sort of language related activities, students could have a better chance to use the language more meaningfully. Therefore a finding here is to have some sort of language support in the class.

4.4.1. Class Organization.

Teachers showed the similar lesson patterns to teach the class. First, they presented the topic and explained the new concepts. They generally solved a sample exercise and/or presented evidence of the explanation. Then they had students work in groups to solve exercises in class. Teachers monitor students' work if needed, they were ready to answer questions or to clarify important concepts.

As shown above, classes followed a similar routine which is a positive factor during the class development, because students know what comes next and prepare themselves either in advance or reviewed the materials for each activity. Once more, there were no language related spaces in the class to make students feel more comfortable in class.

4.4.2. Students' Performance.

On the other hand, by looking at students' behavior, they showed interest in learning the new concepts and were willing to take notes, solve activities and ask questions to clarify doubts or demand additional explanations. Students, were free to use the language they felt more comfortable with, that is to say, it is not compulsory for them to use English during class time. However, most of the students addressed the teachers in English. It was also observed that some students asked questions in Spanish and in those cases teachers answered in English but they were careful to use the easy to understand words to make those learners understand the answers.

It is clear that students who asked questions in English were more confident with their language level while the others struggled to use the language and recur to Spanish. Once more it is evident that students are in need of language support to participate more confidently in class.

4.4.3. Classroom Interaction.

It is important to remark that both teachers included group work in class, and it demonstrated that students who are more skilled in using the target language helped weaker students. It was observed that some students asked their peers the same questions they previously asked the teacher. This shows that there are students who do not have the appropriate English level to comprehend the totality of the concepts presented by the teachers.

Correspondingly, both teachers were attentive to the group work and walked around the classroom to show availability to answer any question students might have. It was noticed that teachers suggested alternatives to solve exercises and gave feedback to students' work. Even though some students did not dare to use English in class, the whole class worked on the activities proposed by the teachers. As a matter of fact, despite the minority of the students who used Spanish in the classroom, English was the dominant language during the class period, and students did not show any negative reaction to this.

This implies a positive attitude students have to this experience. In the same way, teachers also display a positive attitude by preparing and developing the class in the target language or by negotiating the language to use with the students.

4.5. Questionnaire

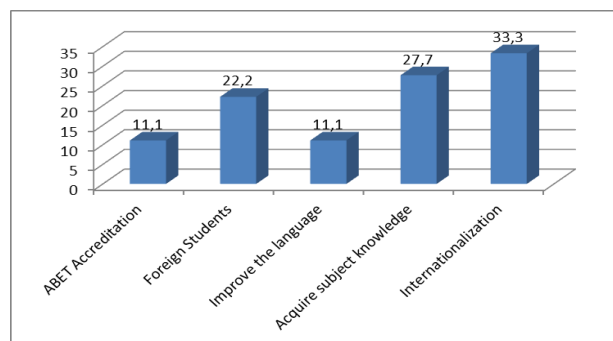
The questionnaire was intended to find out student's perception about having a class taught in English. The Data Base and Digital Design teachers were able to collaborate

and allowed the application of the questionnaire during their class time. Cohen et al (2007) state “The questionnaire will always be an intrusion into the life of the respondent, be it in terms of time taken to complete the instrument, the level of threat or sensitivity of the questions, or the possible invasion of privacy” (p.317). Questionnaire respondents are not obliged to answer it; however their willingness to do so will always be appreciated by supporting the development of any research.

In order to differentiate the Digital Design from the Data Base one, they will be labeled as follows: Digital Design Class (DDC) and Data Base Class (DBC).

In the DDC, there are nine male students registered to attend this class and they were able to answer the survey. In the DBC, there were 18 students registered to attend this class, and the same amount of students attended the class the day the questionnaire was applied. In total, 27 completed the questionnaire. The following graphics will describe the answers obtained from the 27 students.

Question 1 - Why do you believe this class is taught in English?

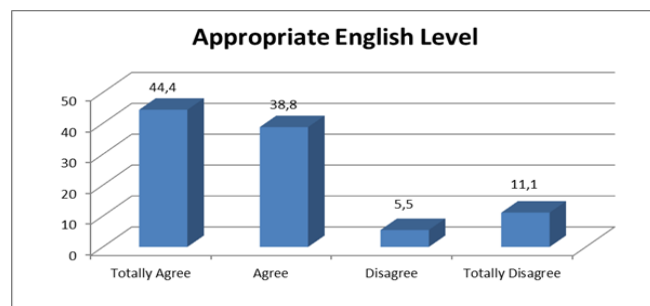


Graphic Question 1

From this question, it can be concluded that students consider that internationalization is a major factor to offer EMI classes. 33, 3% selected this item. This is

followed by the acquisition of subject knowledge with a 27,7% and the presence of foreign students in class (22,2%). The factors with less percentage were the ABET accreditation and the improvement of their command of English. This may mean, on one side, that students are not fully aware of the demands of the international accreditation and, on the other, that they really consider that this is a content class and has nothing to do with the learning of the language.

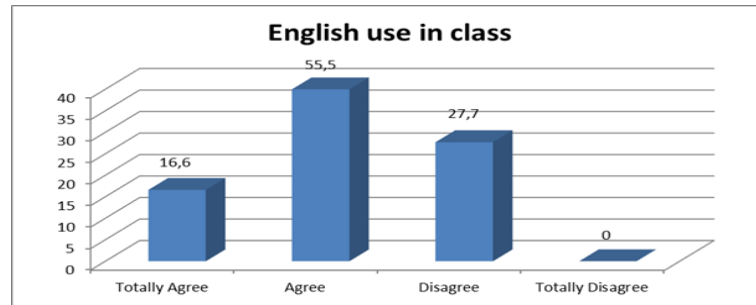
Question 2- My English level is appropriate to take this English subject.



Graphic Question 2

83,2% of students consider that their English level is appropriate to take this class in English. This is a very interesting result because it means that students feel that they can follow the class easily and understand the topic. The perception here may be also related to the listening and reading comprehension skills which are the ones they use more rather than the speaking or writing skills that they barely use.

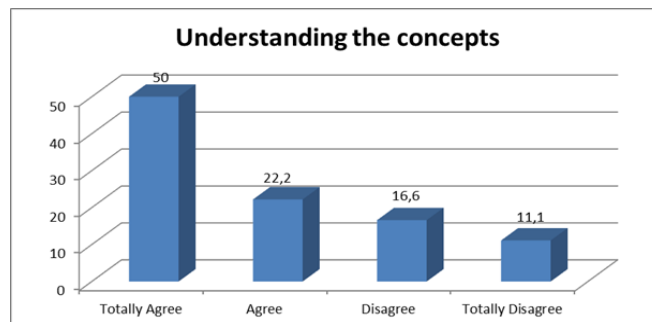
Question 3- English is used 100% of time in class.



Graphic Question 3

A total of 72,1 % of the students agree that English language is used during the whole class period. This was observed during the classes, however, what happens when the observers were not present may have lead 27,7 of the students to say it is not completed in English all the time.

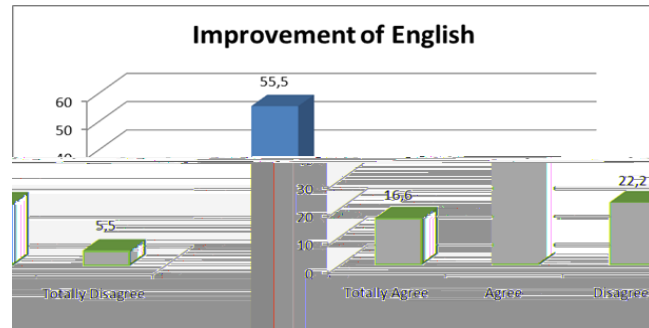
Question 4- I have clear understanding of concepts.



Graphic Question 4

72,3% of the students expressed they understand the concepts explained in class as opposed to a 27,7% who say that they may have problems in understanding the class. Aside the language aspect, the concepts seem to be very practical and require mostly technical knowledge from the students. Language seems to not be an issue here.

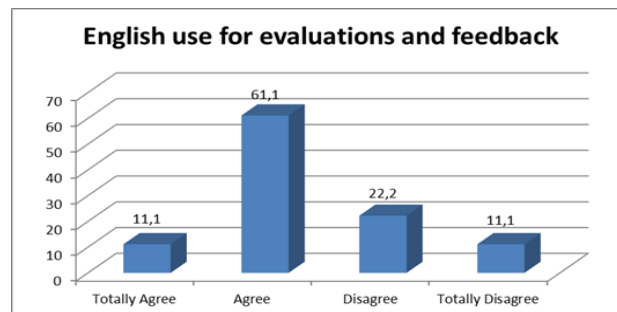
Question 5- My English level has improved with this class.



Graphic Question 5

72,1% of the students consider that their English level has improved with this class. This can be interpreted as to the development of a sense of achievement when they see that they can use the language for real learning purposes and not only for the language learning process itself. This may be the first time in which they use English for meaningful communication.

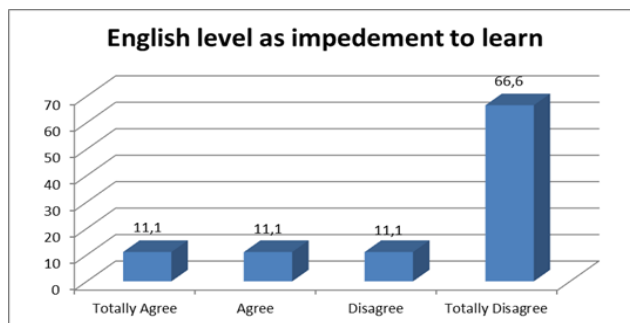
Question 6- Are evaluations and feedback made in English?



Graphic Question 6

72,2% of the students reported that both evaluations and feedback are in English. This result confirms that English is used during the whole academic term and not only when the observers were present.

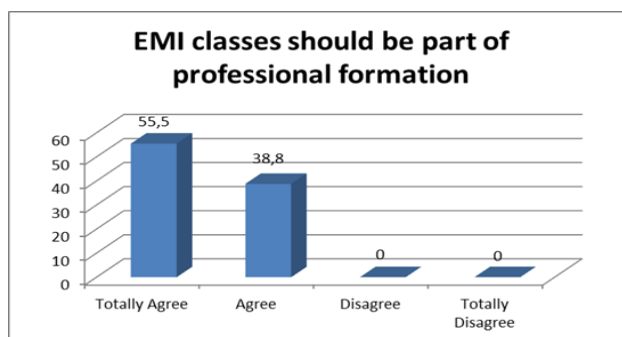
Question 7- My English level has been an impediment to learn the concepts.



Graphic Question 7

77,7 % of the students disagree with this statement. Once more they feel they can cope with class requirements and that the language is not a burden for their comprehension.

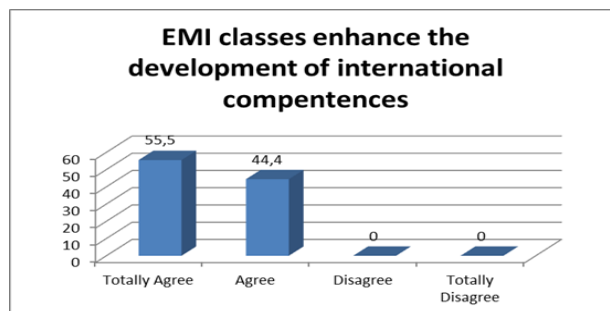
Question 8 – Taking subjects in English should be part of professional formation in this university.



Graphic Question 8

94,3% of students agree that EMI classes should be part of their professional education. This may be the result of students becoming aware of the importance of English for their future professional life as these subjects are taught in the last semesters of their majors.

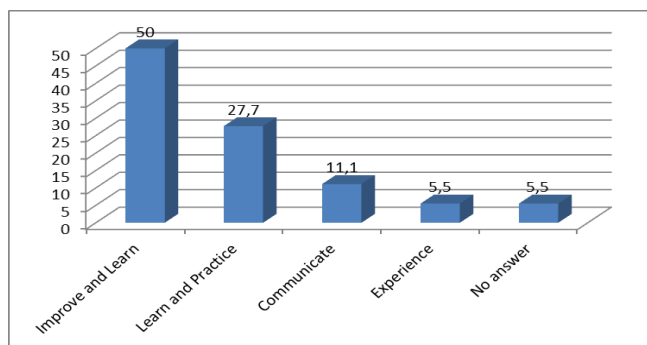
Question 9 – An English Mediated Instruction subject enhance the development of my international competences.



Graphic Question 9

This result is quite compelling as 100% of the students agree with the statement. Using the language to learn and talk about professional topics definitely is an international competence as perceived by these students.

Question 10- What is the benefit of taking this subject in English?

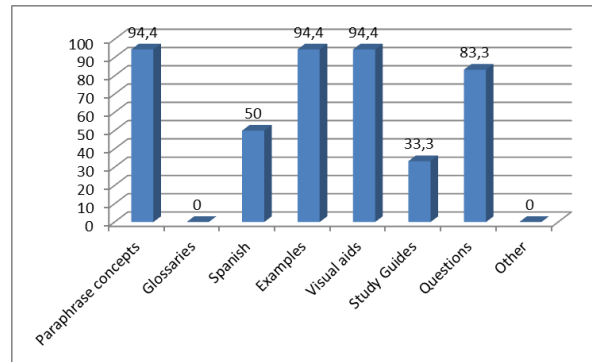


Graphic Question 10

Out of the variety of questions, responses were classified as follows:

Improve and learn: 50% of the students consider that EMI classes offer them the opportunity to learn and improve both English and subject content. This is followed by a 27, 7% of students think that with EMI subjects give them the chance to learn and practice English while learning content. The third result is an 11,1% of students who answered that EMI subjects allow them to communicate better with foreigners.

Question 11 – Which activities does the teacher use in class?



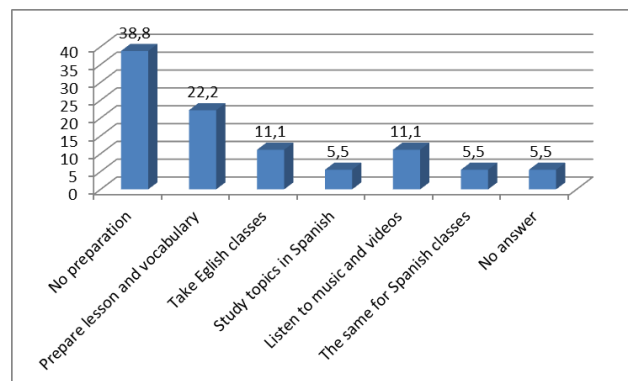
Graphic Question 11

Out of the options given to students, students selected the following three as the most common (94,4% each) among teachers:

- Paraphrase concepts and main ideas.
- Use of practical examples in class to explain the concepts.
- Visuals aids.

These three actions were followed by the use of questions in class to check comprehension (83,3). The use of Spanish as a tool in the class (50%), the supply of study guides (33,3%) and the use of study guides (33,3%) to support learning.

Question 12 – How do you prepare yourself to take an English content class?



Graphic Question 12

38,8% of students answered they do not do anything to prepare themselves

take the subject in English while a 22,2% said that prepare the lessons and check on vocabulary ahead of time. Some others expressed that they take English classes (11,1%); Listen to music and videos (11,1%). Some others said that they study the topics in Spanish (5,5%).

As general analysis of the questionnaire, both classes, Data Base and Digital Designed have similar answers. It seems students are aware that the fact of having a content class in English will have future effects in their profession. Most of them agreed this is necessary to have this class to improve English competences, communicate with foreigners, learn concepts and terminology of the career in English. Also that it counts as a good communicative experience. Even though the majority of the students agree with the benefits previously mentioned, a minority believe they do not have the right level to take the class and it interferes with their learning process.

The questionnaire shows students perceptions towards having a content English class, it seems that it promotes students' awareness to face the university goal of participating in the Internationalization at Home trend. Most of the students agree, nowadays, it is essential to have English competences to be competitive in the professional and working area around the world. It also gives them the opportunity to communicate with foreigners and may open doors to study or work abroad. They recognized teachers use different activities to help them understand, learn and apply the acquired knowledge.

A minority of students think their English level is not the right one to take the class and find it as a major constrain, because these students are not sure about their progress in class due to the lack of confidence to communicate in English, there is a teacher-students gap which must be overcome. Teachers would have to identify the low English level students and offer them alternatives to improve their level while learning the concepts in

the class, however this is not done due to the fact that the subject teachers are not language teachers and for them it is more important that students acquire the knowledge of the subject than the language competence.

The next section will disclose the interpretation of the findings. Interpretation involves making sense of the data, or the “lessons learned,” as described by Lincoln and Guba, as cited by Creswell, J (2012).

5. Discussion

In this section of the paper, the results and findings from the data collected will be used to respond to the research objectives. The main research question was addressed to establish the relationship between engineering teachers and student's perceptions and EMI as a strategy to foster Internationalization at Home.

In order to respond to this question, findings show there is a clear relation between teachers' and students' perceptions towards EMI that is why it is relevant to start identifying the teacher's perceptions towards English medium Instruction as a way to foster internationalization. The findings show that participating teachers consider that English is an important subject in their program because of the fact that the university is actively involved in the Internationalization of Higher Education trend. As part of the internationalization process the university, not only registers international students to study in the different programs but also it offers opportunities to have students participate in academic exchange programs. Besides, the labor market demands professionals with cultural and bilingual/multilingual competences; therefore it is fundamental to prepare students to face this trend.

Those were the main reason why these subjects were selected to be taught in English. With attention to this, Altbach and Knight (2007) state "efforts to monitor international initiatives and ensure quality are integral to the international higher education environment" (p. 290).

The teachers consider that students need to be prepared to find situations in which English will be the language of communication either to apply for jobs or to study abroad. They are completely certain that their majors require content subjects in English not only

because of students' language development but also because of content knowledge improvement as they think that students need to be prepared to do so in case they decide to study abroad or are hired for companies that require their engineers to be able to communicate in English in the workplace.

Related to this reflection, the British Council Report (2014) presents that "EMI is thought to be a passport to a global world (p. 3)." Stakeholders, parents, teachers and students agree with the importance of EMI to generate opportunities to be part of the modern, academic and business world.

They also understand their role in facilitating learning through a foreign language and that is why they use different strategies such as paraphrasing, monitoring, and using of visual aids among others. They constantly use the L2 in class not only to introduce and practice the topics but also to assess students' learning and provide feedback. They select and/or design their materials taking into account the subject and not the level of difficulty. However, they are flexible on students' use of L1 or L2 as they let them use the one they feel more comfortable with.

It was also evident that teachers pay close attention to the language they will use in class to reduce students' anxiety. They use clear speech, speak slowly and tend to paraphrase their ideas to help students understand. They check comprehension constantly. They also prepare a complete set of visuals, power point presentations and exercises to give students enough input to grasp the topic. Also, they use collaborative learning activities so students feel more comfortable interacting with their peers when solving an exercise and getting prepared before talking to the subject teacher in English.

Although teachers said that teaching their subject in English is the same as teaching it in Spanish, they revealed that they do not feel totally comfortable teaching the class in

English the whole term. None of the teachers is either a language teacher or a native English speaker. That is why they feel that they cannot correct language errors and are flexible in having students use the language they feel more at ease with. This result may lead to the decision of creating opportunities for teacher development for future EMI teachers and the exploration of what international competences are as well as what an EMI class looks like, what elements should include and what strategies need to be implemented. EMI courses are needed to ensure quality classes with effective language and content teaching and learning. (Uys et al, 2007).

In general terms, teachers are aware of the necessity of offering subjects in English to receive international students on one side, and prepare local students to communicate about their content in contexts outside the classroom.

The second aspect that is important to answer the main question is related to students' perceptions about the EMI classes. The data shows that students are aware of the importance of having a content class in English in their program. Most of them agreed that it is necessary to have this class for different reasons. Among these, they mentioned:

- Improve English competences
- Interact with foreigners
- Learn concepts and terms of their field in English
- Have an international experience.

The majority of the students have the perception that their English level is adequate for the class although a minority feel they still need more language support to face this task. This is why teachers grade their language when teaching the classes, use clear speech and support their classes with visual aids. In this way, they try to cater for students language

needs indirectly. Students also use strategies such as preparing the class in advance and preparing the material ahead.

From the data collected, it can also be deduced that students are aware of the interest the university has in promoting internationalization strategies without travelling outside the country. Most of them agree that having English competences is essential to be competitive in the professional field. It also gives them the opportunity to communicate with foreigners and this may open doors to study or work abroad.

Students also acknowledge their teachers' efforts in helping them cope with the EMI class. They explained that teachers use different activities to help them understand and learn and apply the content. They also value that teachers use different strategies to promote comprehension such as the use of visual aids, the use of clear speech, the flexibility in the use of L1 and L2, the paraphrasing of ideas, and the monitoring of their work.

From all the above, it can be said that class actions, in general, promote internationalization because the interaction moves around the topic and not the language. This enables them to be prepared for work or study related situations in which English is the medium of instruction. Students develop compensatory strategies to cope with class tasks and value the use of English for real communicative purposes.

In sum, the students and teachers' perceptions towards EMI are closely related. It is clearly seen that both value the EMI experience as an opportunity to grow and be better prepared for the workplace or study abroad opportunities. Also they acknowledge that this strategy is part of the internationalization at Home movement inside the university and enjoy working together to make the most out of the experience. Teachers have identified some limitations in the experience but have developed mechanisms to deal with these

limitations. For example, they use different strategies to facilitate learning and are aware that their role is not related with the language learning part but with the content. They also realize there are no parameters to plan an international class and rely on their previous experience to undertake the planning and deliver stages of a lesson. Beelen and De Witt (2011) say that “Internationalization at home is aimed at all students and is therefore is part of the compulsory programme (p.9).” Students, on their side, also prepare material in advance and value their teachers’ efforts to facilitate their learning. They see this experience as a very enriching one and the opportunity to use the language for a real meaningful purpose. Perceptions towards the implementation of this type of IaH strategy are then mostly positive and supportive from both students and teachers.

6. Conclusion

Internationalization of Higher Education has become a must for universities in the last decade. Institutional programs have been created as a way to respond to this demand. Contextual factors may affect the way this movement is interpreted; therefore it is necessary to study how universities are coping with this task. In order to systematize this trend, some institutions have started to implement in-house strategies that do not imply outbound mobility. What has been called Internationalization at Home (IaH). In this study, the experience of using English as a medium of instruction in two content subjects of the Computer Science Engineering program will be analyzed from the perspective of both teachers and students.

In Colombia, this tendency at university level is quite recent and there is no significant research in the field. Thus, the importance of this study relies in the fact that its results will give initial guidelines towards the implementation of this type of actions and generate academic discussion and literature.

As a main result, the study showed that students and teachers' perception towards the use of the EMI strategy are positive although they recognize that it may pose some challenges to both populations. They are aware of the role of Internationalization of Higher Education and they are willing to take part in this trend. They understand that the focus of this strategy is to prepare students to interact with peers and colleagues about the content and that the center is the subject knowledge and not language. That is why the completion of this study took place without major inconvenient. Limitations were probably related to the observation of the class part where teachers felt somehow uncomfortable.

This study has also shown that university teachers need to take the role of action learners. Marquardt (2004), states that “action learning is a problem-solving tool that at the same time builds successful leaders, teams and organizations”. These teachers were not previously prepared to teach their subjects in English therefore, they basically follow the same stages they would do in a class in Spanish. Also, they haven’t had the opportunity to learn from other similar experiences to share learning, strategies, problems and solutions with other teachers who have had the same situation.

This is an important aspect for institutions to take into account when embarking in this type of processes. Beelen and De Witt (2011) suggest that “professional development should be based on the needs of academic staff. These issues are also related to the extent in which internationalization of the curriculum is supported through human resource policies and incentives”, (p.13). The professional development should also be seen as a factor to enrich the Internationalization at Home process taking place in the university.

Another recommendation is related to the implementation of a Content based approach (CBI) in previous classes so students start getting acquainted to the learning of the content through the foreign language. In this approach, both language and content are important. In this way, students get prepared to face future EMI classes. Content based instruction promotes language development and can help to identify students’ language related strengths and weaknesses which would be valuable information for the language teachers.

This recommendation brings us to the next part which is related to the articulated work among the different university departments joining efforts to attain the institutional goal. This can imply that the Foreign Language Departments can be an important actor as

they can use the information collected to revise the curricula and make the necessary adjustments to prepare teachers and students for the EMI classes.

In sum, the Internationalization at Home movement is quite new in many contexts. The strategies that universities select need to be constantly studied and researched in order to make the necessary adjustments. In this case, the study was focused on the use of EMI in a Computer Science program. There are many other EMI classes in progress in different fields. It would be important to learn how other institutions, teachers and students cope with this task.

7. Recommendations

This research was developed in order to know teacher and student's perception toward EMI as a strategy to foster internationalization at home, in order to have students become English skilled professionals to face the Internationalization trend. This is a topic that has not been widely studied and it can be said that there is still a lot to investigate and to learn from the emerging research about this topic. Then related to this, university teachers need to take the role of **action learners**. Marquardt (2004), states that "action learning is a problem-solving tool that at the same time builds successful leaders, teams and organizations". It was not noticed that teachers worked as English-Subject teacher team, and therefore they are missing opportunities to share experience, strategies, problems and solutions, which might be beneficial to design language teaching/learning objectives related to the each topic.

The interview, survey and observations let notice the necessity to provide English teaching strategy training in order they feel confident to use the language, teach the language and design lesson plans taking into consideration the language and content objectives. Beelen and De Witt (2011) suggest that "professional development should be based on the needs of academic staff. Finally, these issues are also related to the extent in which internationalization of the curriculum is supported through human resource policies and incentives". The professional development should also be seen as a factor to enrich the Internationalization at Home process taking place in the university.

Students of this program do not have the advanced level to take an EMI class, the faculty should consider changing the EMI classes to CBI classes in order teacher and students can notice the progression in areas, content and language. CBI permit to

implement language teaching methods that emphasize on vocabulary, grammar and content. Furthermore, it could help to identify strengths and weaknesses along each semester term which would be information to review and the basis to design better lesson plans with language/content goals and strategies.

Teacher's role as facilitator should include planning language strategies to empower student's language learning motivation and language communication practice in real professional context.

It is important to clarify that elements, content and language are important and both take time to learn, therefore it is essential to allow some time to each element to be practiced and include activities to integrate the two elements in the classroom.

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Appendices

Appendix 1. Teacher's Interview

Date: August 19th, 2015

Data Base Class

Interviewer = I

Professor = P

Turn	Participant	Participation	Categories
1	I	<p>Simplemente queremos como, que tú nos cuentes como haces en la clase.</p> <p>La primera pregunta es. ¿Por qué esa asignatura es en inglés?</p>	
2	P	<p>Bueno entiendo, que, que el digamos que las razones más atrás como las comprendo es que la universidad o la división de ingeniería está dentro de un unos grupos asociaciones eh...donde la idea es que haya movilidad de los estudiantes a nivel internacionales tanto los estudiantes de aquí puedan irse a otras universidades como los de otras universidades puedan venir acá.</p> <p>Y entiendo que para participar en esas asaciones la universidad, por lo menos el departamento y la división porque así están los otros departamentos también, tienen que... este... participar por decirlo así con algunas clases en inglés como para poder tener una participación más real en esas asociaciones. Para que haya más probabilidad de movilidad.</p> <p>Entonces, eh.. Creo que son tres clases las que tiene que ofrecer el departamento y eh.. Ahí estamos entonces tres profesores en donde digamos que el grupo se redujo a los profesores que se sentían con digamos que con la capacidad de dictarla en inglés. Y pues es ya pues prácticamente Pedro (¿...?) y más nadie quedo...pero igual no tenía muchas opciones pero igual aja nosotros con mucho gusta la estamos ofreciendo en inglés. Yo entiendo que esta es la principal razón para hacerlo y nosotros de todas maneras se lo hemos vendido a los estudiantes como que es una oportunidad para que ellos ...fuera de las clases de inglés ellos puedan practicar el idioma, en una, en un área o en un espacio que es muy parecido a su área de trabajo, mejor dicho prácticamente su área de trabajo y que eh, y siempre recalamos el</p>	

		hecho de que las empresas están buscando egresados que hablen inglés; de casualidad el otro día hablamos con una empresa que me dice que le está tocando buscar gente por fuera de Barranquilla porque los estudiantes, los egresados no pasan las entrevistas que les hacen en inglés.	
3	I	No	
4	P	No. Dicen que hablan inglés pero llegan y no pueden establecer una conversación con...	
5	I	Técnica	
6	P	Exacto. Entonces en el caso de esa empresa ellos hacen outsourcing de servicios en Estados Unidos. Contratas personas aquí, pero los clientes suyos son, este	
7	I	Americanos.	
8	P	Americanos. Y muchos de los clientes piden tener contacto con las personas con las que están haciendo el desarrollo. Entonces cuando lo entrevistan si no pasa el inglés, no entra.	
9	I	¿Pero más que, entonces, más que la asignatura per se, es la capacidad del profesor para dictar la asignatura en inglés?, ¿O es porque tu asignatura si tiene algo que se podría hacer más en ingles hay mucha lectura, mucha escritura, o es por qué tu sabias inglés?	
10	P	Eh.. principalmente es porque yo sé ingles pero de todas manera la materia se presta, la asignatura se presta porque lo... el libro está en inglés, hay impresión en inglés y en español, pero por ejemplo las diapositivas del libro Están en ingles porque el libro original esa en inglés, y el tema es, no es difícil, es muy técnico de mucha práctica. Este entonces yo doy la teoría en inglés y la práctica de ellos es...están prácticamente independiente del idioma. Eso lo facilita mucho.	
11	I	Okay	
12	I	Bueno, en cuanto a los estudiantes, ya dijiste como tu vendes esa idea de esta clase de inglés a los estudiantes, pero quiero saber, eh, los estudiantes... ¿tu crees que ellos comprenden los conceptos... ellos entienden lo que tú dices o..?	
13	P	Yo puede decir, un número así, una estadística, yo puedo decir que ellos comprendan lo que yo estoy diciendo como un 80% de los estudiantes, eh...pero si pasa que de pronto se me pierden a veces. Por, o no	

		sé si de pronto porque el nivel de atención que le requiere es más alto. Entonces uno a veces les pregunta algo y ellos quedan como tratando de...	
14	I	What?	
15	P	Sí. Entonces, afortunadamente en la clase los conceptos no son difíciles. Y yo creo que sí, si comprenden, porque ellos hacen cara de más o menos cara de si, si están entendiendo. Pero cuando les hago una pregunta entonces se quedan callados.	
16	I	Pero ¿será porque no comprenden el tema o porque les da miedo hablar en inglés?	
17	P	Un poco de ambos, pero, pero yo sé que, yo he sentido que cuando yo sé que la pregunta es fácil ellos enseguida me responden, como la segunda vez que yo pregunto pero me responden. Pero si hay veces, que por casualidad hoy les hice una pregunta y se me van así como uhm... uhm... entonces yo sé que si de pronto hubiese sido en español la materia, el que pudiera me la explicaba en español, más la pregunta en español, entonces si me hubiera respondido.	
18	I	Entonces, el 20% que no están contigo, ¿Qué haces con ellos? ¿Qué estrategias utilizas en la clase?	
19	P	Sinceramente no puedo saber si están o no están porque no me lo dicen. O sea porque yo hago talleres o quizzes o hago evaluaciones en clase, pero una vez cada dos semanas, de pronto, antes no, pero no, no pregunto así, ¿, tu?, ¿quién sabe? no. Entonces no tengo forma de saber.	
20	I	Pero cuando tú ves que no entienden y están así un poco perdidos ¿ vuelves y parafraseas el concepto..?	
21	P	Ah, no si, exacto. Si yo de pronto explico algo y veo que no... o hago una pregunta como lo que paso esta mañana que hago una pregunta y de pronto no me siguen entonces yo vuelvo a explicar de otra manera que fue lo que hice y ya hice la pregunta de otra manera, hasta que por fin alguno por ahí me respondió.	
22	I	¿Ellos te responden en inglés o tú aceptas que te respondan en español?	
23	P	Yo generalmente les digo que respondan en inglés. A menos que si el otro día hubo uno que no termine...Yo vi que ellos estaban enredados en inglés y yo dije bueno hagámoslo en español, pero hablamos en español por un tiempo.	
24	I	Entonces ¿Cómo preparas la clase? o sea ¿La clase dictada en inglés es diferente a como tú la dictas en	

		español?	
25	P	No, no es diferente. O sea el material es el mismo, incluso el del semestre pasado que vi más renuncia a la clase de inglés, de todas maneras yo dije bueno el material lo vamos a hacer en inglés, y entonces las presentaciones eran en inglés y yo les iba traduciendo ellos podían ir leyendo en inglés. Pero las presentaciones son las mismas, el material es el mismo y no, no cambia la metodología.	
26	I	Y la evaluación, a mí me llama mucho la atención el tipo de evaluación que tú haces como tú dices que hay muchas cosas practicas lo que le pones son, por decir ejercicios, o ellos tienen que hacer un writing o un ...	
27	P	Son ejercicios la mayoría por ejemplo para explicar muy, muy encima sin conceptos técnicos en la materia lo que ellos ven es una materia que se llama base de datos, ellos tienen que aprender a diseñar bases de datos con unas técnicas, por decirlo así, que nosotros vemos en la materia. Y las evaluaciones son con respecto, yo les digo hay un enunciado...un problema por decirlo así, y ellos tienen que solucionarlo con un diseño en una base de datos, con las técnicas que hemos visto en clase. Entonces las evaluaciones son más que todo de escribir, porque uno puede hacer un diseño a partir de un enunciado o también otras técnicas que vemos en clase son como yo puedo hacerle consultas a la base de datos. Entonces ellos aprenden un lenguaje de programación para hacer las consultas y yo les digo bueno tienen que responderme tal pregunta, conectar el lenguaje y ellos las responden...	
28	I	Pero es muy... son muy pocas palabras.	
29	I El lenguaje ese que tú les digas.	
30	P	No son ensayos que ellos tienen que escribir. En la clase si hay reportes que tienen que hacer sobre diseños y trabajos donde yo hasta ahora que lo he dictado en inglés, nunca los he puesto que lo hagan en inglés. Tienen que hacer su reporte en español, Y ahora sí que ellos tienen que hacer una presentación en el semestre y yo les dije les doy una bonificación si lo hacen en inglés. Pero no quiero meterme en, en; no sé cómo a hace la universidad pero que yo sepa no puedo evaluarlos en inglés. No sé eso...	
31	I	Nosotros porque si evaluamos en inglés.	
32	I	¿Será porque dictamos clases de inglés?	
33	I	No, no. Lo que pienso es que no hay una política. No sé pero bueno, podemos averiguar eso. Interesante.	

34	P	Exacto. Yo me quisiera atrever pero no sé si un estudiante me diga usted me.... Un dos y me diga pero es que yo no lo entendí en inglés.	
35	I	Pero y tú, ¿tú les corriges en inglés? O sea cuando alguno dice alguna cosa mal hecha... o tu igual...	
36	P	Cuando ellos hablan en inglés, eh... yo si me las tiro de gringo, en el sentido de que si no entiendo le pregunto: "¿Cómo así?, o What do you mean?". O algo así por el estilo para que ellos me expliquen mejor. Cuando yo ya entendí la pregunta, si yo veo que definitivamente el pelao no da para decir los temas, nos vamos al español.	
37	I	Pero no les dices: "No se dice people is; se dice: People are". Tú nunca te metes con la minucia de la corrección gramatical.	
38	P	No me considero experto como para corregirlos tampoco a ellos.	
39	I	Ok. Bueno tu dijiste que esta clase es como una parte de movilidad y eso, como algo que la universidad ha puesto, pero yo pregunto ¿Qué ganancia tienes tú en dictar la clase en ingles tienes tu alguna ganancia o te mantienes un peso?)	
40	P	No, yo creo que afortunadamente, o sea a mí me gusta mucho, eh, practicar el inglés, eh, este.. de cualquier forma, ya; tanto en la redacción de artículos de investigación y este es la verdad este el único espacio donde yo tengo para hablar inglés. Entonces para mi afortunadamente no lo considero como ninguna carga. Obviamente yo cada vez que o9empieza la clase digo, Ay no ahora tengo que hablar en inglés, porque aja, uno viene en español y bueno vamos a cambiar al inglés. Pero no, afortunadamente yo arranco y como yo siento que lo hago bien, no perfecto, pero me va muy bien... siento que no tengo problema, o sea me siento cómodo.	
41	I	¿Y qué porcentaje dictas la clase en inglés? O sea digamos del semestre ¿qué porcentaje?	
42	I	Y de los cincuenta, sesenta minutos. ¿Dictas sesenta minutos de inglés?	
43	P	Son dos clases de dos horas. De las dos horas ... generalmente hago anuncios al principio en español. Eh, de por ejemplo el examen acuérdense que hay un examen tal día. Ahora se me acaba... en este segundo me acaba de, de pensar que no se si tenía que hablar en inglés o en español.	
44	I	Right now here, during this conversation?	
45	I	No, it's ok. No, español está bien. No te preocupes.	

46	P	Yo hago anuncios en español y después si arranco en inglés, entonces de las dos horas, como.. una hora y cuarenta y cinco en ingles de pronto.	
47	I	Y tú hablas dos horas? Tú eres súper intenso.	
48	P	Yo hablo por el porcentaje. Pero de las cuatro horas a la sema, eh.. si con este grupo yo estoy dando las cuatro horas completas en inglés. Los dos días en inglés.	
49	I	Preguntaba la ganancia tuya, pero como, ¿Qué piensas que es la ganancia de ellos tomar esta clase en inglés? ¿O no hay ganancia?	
50	P	Si, pues, yo espero que sí, si tengan... este yo creo que lo que les explicaba ahorita. El hecho de que ellos vean que hay un espacio extra por fuera de las clases de inglés para ellos practicar, eh... tanto el listening como el speaking, porque... bueno no sé en las clases de inglés, que tanto se les explora el speaking, pero que ellos vean el espacio que de que hablen inglés, si quieren preguntar algo se lancen y que sobre todo que ellos vean que pueden practicar el inglés en otro ambiente fuera de clase de inglés. Y el hecho de que, cuando, el que yo les dije o sea que cuando yo les digo a ellos también, que ellos cuando salgan al mercado laboral hayan practicado más su inglés y que puedan atreverse de pronto a entrevistas en inglés o a hacer lecturas en ingles mas fácilmente.	
51	I	¿Y hay estudiantes que tú crees que pierden la materia por qué no, no saben inglés, por el idioma?	
52	P	Afortunadamente, eh...	
53	I	¿O nadie pierde?	
54	P	La materia no es difícil, entonces, yo digo que yo soy un profesor madre. Entonces yo les pongo unas evaluaciones que no son tan difíciles así, y igual, afortunadamente los estudiantes responden y como los conceptos no son difíciles no llegan a perder la materia.	
55	I	Los estudiantes están en que semestre? Me recuerdas.	
56	P	Sexto	
57	I	Sexto	
58	P	Esa es una ventaja también porque ese es un semestre donde los estudiantes ya están suficientemente maduros. De vez en cuando si nos llega el vago de los vagos pero creo que a mi alguna vez alguien me ha perdido una materia pero, tiene que ser...	

59	I	Y aquí como para hacer un comparativo con nuestro nivel seis. Porque hay que ver que habilidades y competencias desarrollan en el nivel seis que le sirvan a él para ...	
60	I	Aunque tu dijiste que los estudiantes de este semestre muchos ya han terminado ingles ¿no?	
61	P	Son como uno dieciocho unos seis o siete ya han terminado inglés o los eximieron por el examen.	
62	I	Y los demás están todavía..?	
63	P	Están cinco, seis o siete, por ahí.	
64	I	Si nosotros vamos a mirar el nivel que tienen ellos en el sistema	
65	I	Eh, yo creo que lo último sería en cuanto al desarrollo de inglés de los estudiantes, se suponen que aprenden el contenido tuyo pero ¿tu sientes que ellos mejoran su inglés, o...?	
66	P	Difícil saberlo, pero yo diría que sinceramente no, o sea en el sentido que no, eh, habría que buscar o tendría que buscar de todas maneras la manera que ellos definitivamente por decir algo, ponerlos las evaluaciones en inglés. Que ellos se sientan forzados o a que hablen inglés o a que escriban en inglés o que yo ponga por ejemplo, porcentaje de la clase: participación, entonces ellos definitivamente tienen que hacerlo. Pero como entonces como yo no tengo ni participación y no me atrevo a hacer las evaluaciones en inglés, entonces no sienten así la ... y aja ustedes saben la actitud del estudiante de yo me siento aquí y el profesor habla del tema. Obviamente si hay un grupo que siempre generalmente participa está pendiente, pero si no ven la barrera del inglés y no ven que de pronto yo no estoy poniendo el participen, etc., etc., de pronto no sienten necesidad.	
67	I	La clase es mayormente así? ¿O sea magistral que tú les estás hablando y ellos están escuchando?	
68	P	Ellos tienen una parte práctica, no, tenemos una parte, digamos que si es magistral donde ellos pueden participar de todas maneras y en la parte práctica yo si generalmente yo les voy explicando y ellos van haciendo el laboratorio y por decir algo, este jueves ya les voy a poner un taller donde ellos tienen que sentarse a hacer; pero cuando si es la parte magistral si participan pero los mismo tres o cuatro, pero ya uno sabe más o menos cuales son los que, o sea hay ahí un grupo que si, si hablan inglés y tengo un grupo que me asistieron que no, no. Incluso yo un día les tome el pelo porque les dije, bueno si no hacemos la clase en inglés, la vamos a hacer en	

		español pero todos los días vamos a cantar una canción de youtube, unos lyrics en inglés, entonces un día les puse ahí a hacer eso, y ellos dijeron que si con tal de que no den en inglés, si, si, profe y tal. Eh, pero entonces yo detecte los grupos como unos cinco o seis que sí, no vamos pa'lante, no, hay que saber inglés, etc., vamos a darle a la clase en inglés y otros que siempre estuvieron renuentes a que no la diéramos. Entonces ese grupo que estuvieron renuentes, son los que no para nada es: completamente desconectados.	
69	I	Mira, y tu sientes que ellos se preparan, o sea que te leen el libro antes, o sea que estrategias crees tú hacen ellos para enfrentarse a la clase tuya antes, o sea se leen el tema antes, se preparan el vocabulario, no sé cómo ...	
70	P	Yo no tengo las diapositivas les digo donde está el libro más allá que si van el libro al a sacarlo como no de pronto que no le dé una técnica que digo vamos a leer tal cosa y para tal día tienen que venir el libro leído, de pronto no. Las diapositivas si yo sé porque ellos me preguntan profe las diapositivas, están pendiente, y a veces me hacen preguntas, este semestre todavía no, porque esta temprano pero si me hacen a veces preguntas sobre el material propiamente. Entonces eso lo que yo diría que a ellos como, aja, la ayuda de la diapositiva siempre el estudiante lo va a ver como un shortcut para no tener que leerse el libro.	
71	I	Pero después, leen las diapositivas después de la clase no antes.	
72	P	A veces lo hacen antes, a veces lo hacen antes pero pocas veces después, pero también por lo que te digo, de que no es, como uno no está detrás con el control de lectura, tienen que leerse esto para tal día, aquí tienen este capítulo y después hacemos un quiz, entonces no ocurre tanto.	
73	I	Ok. Yo creo que eso sería Miguel. Gracias.	

Appendix 2

Teacher's Interview

Date: September 8th, 2015

Digital Design Class

Interviewer = I

Professor = P

Turn	Participant	Participation	Categories
1	I	La primera pregunta que nos gustaría hacer es: ¿Por qué se dicta esta clase en inglés? Esta asignatura?	
2	P	Bueno yo diría que ahí hay dos respuestas. Una es porque las asignaturas que se dictan en ingles las manejan profesores que hayan terminado su doctorado en alguna universidad donde se hablara inglés. Entonces digamos que periódicamente se asigna, eh ciertos profesores a ciertas asignaturas, por asignación del departamento. No es que sea específicamente esa, pero siempre hay alguna materia que se dicta en inglés.	
3	I	Siempre son ciertos profesores que dictan algunas materias en inglés.	
4	P	Si los que han terminado su doctoras... Esa es la razón por la cual esa materia se dicta en inglés, porque la dictan los profesores que terminaron sus doctorados en una universidad donde se hablara inglés. Esa es la razón y...	
5	I	Y que es la razón de los estudiantes cuando tú le dices, esta materia, mi materia se va a dictar en inglés?	
6	P	Bueno, las experiencias que he tenido antes, como les dije ya yo eso lo he hecho antes, eh... depende mucho del grupo. Hay grupos que tienen buen nivel de inglés, inclusive mejor que uno, porque de los que hicimos el doctorado aprendimos ingles después de viejos y tenemos un acento terrible, y hay estudiantes que tienen un muy buen nivel de inglés y hay otros grupos que no. Entonces yo diría que eso... no hay manera de decir de ante mano si les va a gustar o no les va a gustar. Los que se sienten cómodos con el inglés en su mayoría, bien, les da lo mismo, los que no, siempre eh, no lo dicen pero si expresan de cierta manera su incomodidad, diría yo.	
7	I	Ok. Entonces, tu sientes que vender la clase o no vendes la clase?; o dices esta materia se dicta en inglés y vamos?	
8	P	No. Es que igual, una vez se toma la decisión de dictarla... ahí, no hay, no hay otra opción. Se sigue. Exacto. O sea y tampoco a los estudiantes se les	

		pregunta: Ustedes quisieran o les gustaría? No, simplemente vamos a dictarla en inglés y ya. Y no es mas de ahí.	
9	I	Ok y ellos no preguntan por qué?	
10	P	NO. Si preguntan por qué? La razón es que el departamento decidió que tal y tal asignatura se va a dictar en inglés.	
11	I	Ok. Listo, listo. Y que dirías que es el porcentaje que se dicta en inglés. Es l el 100%, el 80%. Como seria ese porcentaje en inglés?	
12	P	Bueno, eso también ha dependido mucho del grupo y de los temas que se estén tratando, por ejemplo: La materia que van, a ver, las veces que se ha dictado en ingles, el porcentaje ha sido alto, yo diría que 80, 100%. Cuando es con inteligencia artificial, que son temas más complejos, muchas veces toca parar y seguir en español. Entonces ahí si se reduce, por tema, o sea por tema yo diría a un 40; 40, 60%.	
13	I	Cuándo el tema es difícil para ellos entender?	
14	P	Sí. Porque hay cosas que... o sea, lo importante no es darles el inglés, lo importante es que la gente las entienda. Y si eso significa darlo en español, se da en español. Ahí yo pienso que la prioridad la tiene el tema sobre el idioma.	
15	I	OK. Entonces, que dirías tu que el objetivo principal de la clase es? Es el contenido y el idioma no interesa.	
16	P	Por supuesto, por supuesto. El contenido debe ser independiente del idioma, porque a la larga, si estos muchachos si estos muchachos algún día se van a otra universidad, deben ser capaces de interpretar el contenido, no importa si la clase se la dan en francés, en inglés, en italiano, en lo que sea. Deben tener la capacidad de entender el contenido. Obviamente que el idioma es una herramienta, pero... siempre el contenido sobre el idioma.	
17	I	Claro. Y dirías tu que tu das retroalimentación sobre la lengua a los estudiantes?	
18	P	Eh... algunas veces. Y algunas veces es al contrario, ellos le dicen a uno como decir las cosas bien.	
19	I	Ha, ha, profe, eso no es así.	
20	P	Exactamente.	
21	I	Ah bueno.	
22	P	O sea, no es una labor de...Yo no soy profesor de inglés no tengo porque estarles corriendo su pronunciación si hay algo que yo, eh... es	

		extremadamente absurdo, que eso no es así, obviamente. Pero si más o menos se defienden, tampoco...porque se amedrenta la gente cuando uno empieza andar corriendo por todo, entonces la gente no habla y ya.	
23	I	Se frustran.	
24	P	No. No sé, o se quedan mirando pa'l cielo. Lo que sea.	
25	I	Dejan de interactuar.	
26	P	Si dejan de interactuar, porque es más fácil pa' ellos.	
27	I	No si claro. Eh? Tu utilizas unas estrategias especiales para que los estudiantes comprendan en una clase en inglés?	
28	P	No utilizo estrategias especiales, pero si uso herramientas tecnológicas, sobre todo para la clase de Diseño Digital que es la que van a ver si uso una herramienta software libre y gratuito que me permite mostrarles en vivo en la clase ejemplos de cómo funcionan circuitos y eso. Entonces, eso reduce mucho las palabras que uno tiene que usar, y facilita mucho la interpretación porque están viendo las cosas ahí. Entonces, eso me ha ayudado también mucho al desarrollo de las clases.	
29	I	Eh? Entonces si dictas la clase en inglés o en español la dictas de la misma forma?	
30	P	De la misma forma. Exactamente.	
31	I	De la misma forma.	
32	P	Sí, sí.	
33	I	Ok.	
34	P	Una cosa que sí hago es que el texto guía, por ejemplo... vamos a ver si lo tengo por aquí...esto libro que lo tengo todo así, es porque lo uso mucho.	
35	I	Ah, sí claro.	
36	P	Entonces, el texto guía es en inglés. Entonces eh, pues digamos, que ellos conocen bien... o sea, no es que no lo haya en español, sino que, yo uso ese.	
37	I	Si hay en español?	
38	P	Si claro.	
39	I	Y los estudiantes utilizan el libro en... en... español.	
40	P	Yo les sugiero... Igual aquí en la biblioteca hay ambas versiones. Hay la versión en inglés y la versión en español. Pero yo les sugiero que usen la versión en inglés para que estén más de acuerdo con lo que yo estoy haciendo en la clase. Y eso facilita mucho, por ahí leí algo también sobre el glosario y eso, pues si estamos usando el mismo	

		texto guía, no va a haber tanto problema por ese lado.	
41	I	Ah bueno, listo. Y tú piensas que los estudiantes comprenden los contenidos. Ellos si aprenden en la clase?	
42	P	Eh, pues los resultados de los exámenes demuestran que sí. Que ahí es donde se ve a la larga. Porque si algo no anda bien se refleja en las evaluaciones, pero en general, eh... en esa asignatura nunca he tenido problemas así de que	
43	I	En Diseño Digital?	
44	P	En Diseño Digital... eh... mortalidades altas, ni nada de eso.	
45	I	Y da lo mismo, Inglés, español la mortalidad la mortalidad no es tan alta?	
46	P	No es... porque es que ahí, la verdad... al momento que ustedes vayan y vean lo que se hace en esa clase se van a dar cuenta que ahí se hace mucha cosa técnica. De ver como se conecta A con B, etc. Y si la persona en su mente entiende el concepto, no se va a enredar mucho. Esa es mi opinión en cuanto a esa materia, porque es técnica y si las técnicas, o sea son una serie de paso primero A, luego B, luego C. Y si ellos entienden como se hacen esos pasos, no importa el idioma y no importa yo... también los exámenes, eso si lo hago siempre, los hago en ingles	
47	I	Ah, esa era mi pregunta. Los exámenes son en inglés?	
48	P	Son en inglés, los enunciados son en inglés.	
49	I	Y cómo son los exámenes?	
50	P	Por aquí debo tener algunos de ejemplos...	
51	I	Tú puedes preguntar... no solamente yo, por cierto.	Dirigiéndose a la otra entrevistadora.
52	P	Estos son del año pasado, clases, diseño digital...Mira este por ejemplo es el examen final del segundo semestre del 2014. Son preguntas muy concretas: Dada la tabla tal, elabore tal cosa. O sea, los que ellos necesitan de inglés ahí no es mucho, pero si necesitan muy bien conocer las técnicas que se les están preguntando. O sea son preguntas cortas pero que se tiran uno o dos páginas de examen en cada una de ellas. O sea, en dos preguntas que tú ves aquí, se pueden demorar dos horas. Más o menos. Entonces esto es lo que con buenos deseos y todo son los mejores... que se sientan felices	
53	I	Qué bien.	

54	I	Una pregunta. En el desarrollo de la clase, por lo menos, los prepara usted para el vocabulario para que ellos estén entiendo bien el contenido y preparándolos para estos exámenes si se encuentran una palabra desconocida.	
55	P	Como te comenté, el texto guía es en inglés. Fuera de eso, eh... yo les tengo preparadas unas guías de estudio, pero esas si son en español y eh... yo no escondo los exámenes, es decir, ellos pueden encontrar exámenes de semestres anteriores, que les pueden servir de referencia, entonces o no creo... y además de eso, tengo políticas de puertas abiertas aquí, que si ellos tienen alguna pregunta vengan antes del examen a consultarme lo que haga falta. Entonces por ese lado nunca he tenido problema que no sepan lo que se les está preguntando, no.	
56	I	Ah bueno. Eh... y en cuanto a la interacción cuando se dictan en ingles los estudiantes participan activamente?	
57	P	Sí.	
58	I	Respondiendo en inglés o utilizando los dos idiomas?	
59	P	En los dos idiomas, lo que puedan, si se sienten cómodos en inglés, si no en español. Ellos saben que igual que tienen que seguir pa'lante con la cosa.	
60	I	Y los que se expresan en inglés, bueno yo supongo no, los que se expresan en ingles son los que se sienten más cómodos en inglés. La pregunta que yo quería saber es que ellos si se pueden expresar en inglés, la mayoría, que porcentaje?	
61	P	Yo diría que más o menos... como la mitad se pueden expresar con confianza en inglés.	
62	I	La mitad de los estudiantes?	
63	P	De los estudiantes, sí.	
64	I	Y hay alguna motivación para ellos, por ejemplo, de pronto si tienen que hacer una exposición si lo hacen en ingles tienen puntos extra, y si lo hacen español, no?	
65	P	No. Y entre otras cosas en esa materia casi no se hacen exposiciones, porque hay mucha cosa técnica, mucha cosa... y si se hace alguna exposición es de... eh... casi nunca lo hago, la verdad, casi nunca alcanza el tiempo pa' ponerlos a hacer... pero podemos hacer la prueba este semestre si el tiempo... el grupo que estoy manejando es como de nueve estudiantes, o sea, es un grupo pequeño.	

66	I	Que chévere, yo quiero un grupo de nueve.	
67	I	Uhm, yo también.	
68	P	Puedo consultarles, a ver qué opinan ellos, si se hace una exposición al final en inglés y que ustedes estén por ahí pa' que, pa' que vean cual es la sensación y el desempeño de ellos. O sea no es que ...	
69	I	Ellos no van a querer mucho, pero...	
70	P	No, pero hay algunos que sí, o sea, yo sé que hay gente que tiene muy bien nivel y otros que no. Pero, igual pa' ellos no es algo chévere, ahí si voy a hablar en inglés, no. La mayoría primero se aguanta, pero bueno, hay que intentar y si les ofrezco unos puntos extra, seguro que dicen que sí.	
71	I	Claro	
72	P	Así no tengan... se atreven, sea como sea se atreven a hacerlo.	
73	I	Y tú crees los estudiantes que si participan, los que participan en inglés, tú crees que su nivel de inglés de mejora? Ellos mejoran el inglés?	
74	P	A mí me parece que, una clase, sobre todo, en lo que son las clases en ingeniería, de pronto en otras asignaturas hay más interacción y el estudiante... pero en ingeniería general mente es, el profesor hacia los estudiantes. El profesor explica una técnica y el estudiante intenta entender y entiende esa técnica y luego, la replica en algún ejercicio que uno ponga. Esa es la dinámica, por lo menos en mi caso en la mayoría de las clases y yo sé que en muchos otros casos es así también. Eh... posibilidades de mejora, de pronto aprendan a algún... vocabulario nuevo. Pero ellos con el vocabulario no tienen problema porque casi todo lo pueden encontrar en internet, o sea, cuando algo no lo saben simplemente lo buscan y ya. Y tienen mucho acceso a eso. Pero debido a que la interacción es más del profesor hacia los estudiantes no es que tengan mucha oportunidad de crecer. Yo por ejemplo hice varios niveles de inglés, hace muchos años, cuando me estaba preparando pa'irme pa'l doctorado y acá si hay bastante participación del estudiante y eso, pero en las asignaturas yo diría que es más al revés, entonces no veo como que mucha oportunidad, para eso.	
75	I	Yo creo que eso apenas yo, tengo dos preguntas más y ya. Eh...Tú como profesor que ganancia sientes tu que tienes o que recibes al dictar la clase de inglés, o no hay ganancia para ti.	

76	P	Eh... para lo único que realmente, siento yo, que me han servido las clases de inglés es para cuando tengo que salir hacer alguna ponencia en algún evento y eso, y es una manera de practicar.	
77	I	De estar activo con la lengua.	
78	P	Sí. De resto sinceramente es más una preocupación que una ganancia, porque hay que hacer un esfuerzo adicional, por... de enfrentarse al público en un idioma que no es el nativo, por lo menos en mi caso yo no me siento cómodo hablando en inglés. Cuando me toca, me toca, pero no es que yo me sienta realmente cómodo manejando clases en inglés, por eso la pelea con Pedro, sí que tal... pero ajá.	
79	I	Y Pedro dicta su clase en inglés? Por curiosidad	
80	P	Yo creo que algunas sí.	
81	I	Yo sé que el también hizo su doctorado en Estados Unidos.	
82		Sí. El distribuye... Si. Normalmente se distribuyen las cargas. Si, y cuando hables con todos van a encontrar alguna situación similar que no todo se hace en inglés, que toca frenar y revisar... eh...	
83	I	Si eso ya lo hemos visto.	
84	P	Entonces, bueno... no sé.	
85	I	Y no has tenido estudiante internacional, porque yo supongo que si llega un estudiante internacional toca como...	
86	P	Fíjate lo que me paso este semestre, eh, pero eso fue en Inteligencia Artificial que es una materia dura porque, eh, a veces el que no sabe cree que Inteligencia Artificial cree que es una cosa así como Filosofía como pa' hablar cosas chéveres.	
87	I	Como la película.	
88	P	Sí. Y resulta que, se me mete una bióloga, que vino estudiante internacional de Estados Unidos a.. .Que de *ingles, poquito. Había una joven mejicana que era como de economía y una psicóloga, que todavía está en la clase y yo creo que ni ella misma sabe que por qué. No si sabe por qué, porque no logró retirarse, cuando quiso retirarse se habían cerrado las fechas de, de... está ahí atrapada, es la palabra, atrapada. Porque yo... Ok le.. al principio me di cuenta que la muchacha como que, de por ahí de inglés, de español, y le pregunté en inglés. "No, no se preocupe, yo entiendo" –dije , Si, claro. Pero después, como a la tercera clase, ya después no volvió más, nunca, no sé qué hizo si se retiró, pero	*Español

		no la vi más. Y la otra cosa era porque tampoco tenía el background para esa clase. O sea, yo creo que fue más por cuestiones de...	
89	I	Era de que, como de noveno semestre?	
90	P	Eso es de último semestre de Sistemas y esa joven era como de mitad de carrera de Biología, entonces, ...y la cosa es que la escogieron porque esa es una Electiva. Y en el sistema les aparece Electiva, y por curiosidad..	
91	I	Y de pronto es chévere?	
92	P	Y el nombre es interesante y entonces por curiosidad la meten, y creen que se van a encontrar con una cosa como en las películas y no eso no tiene nada que ver con películas, esto es puras técnicas y técnicas y algoritmos y haga esto y haga lo otro, y bueno, esa ha sido, eh... no tengo muchos estudiantes internacionales en mis clases. No. Hasta ahora, que yo recuerde ese caso. Esta clase de Diseño Digital se ofrece en mitad de semestre. Y siempre se ofrece en inglés, a ver si alguno la quiere tomar, y nadie la toma nunca. Entonces eso es la experiencia que he tenido hasta ahora.	
93	I	Ok. Y bueno la última mía es, eh si tú dices que realmente es preocupación para ti y no tanta ganancia, para los estudiantes habrá alguna ganancia de tomar de tomar esta clase en inglés?	
94	P	Eso es bien difícil de medir sabes?	
95	I	No, yo sé.	
96	P	Si hay ganancia en idioma, pero que tal que... por andar pensando en el idioma dejen pasar procedimientos, y otras cosas que a la larga para ellos pueden ser más importantes, porque no se dieron cuenta, porque no entendieron cuando uno los dijo, porque tú sabes que los estudiantes a veces se quedan mirándolo a uno pero están es en otro mundo y después le preguntan a los compañeros que fue lo dijo el profesor y ya, así se desenredan. Yo lo que me pregunto es, que tal, que, que les pase eso y hayas cosas que se les pasaron y ya no van a tener oportunidad de escucharlas. Por qué? Porque, a veces no les interesa, y si tras de que no les interesa se los dice uno en otro idioma que tampoco les interesa, entonces? Eso es lo único que yo veo.	
97	I	Alguna vez han discutido con los estudiantes las ventajas o desventajas de saber el contenido de su carrera en inglés.	

98	P	No. No. No porque eso no es...	
99	I	Hay ventajas?	
100	P	...no es elegible. Simplemente se dice, se va a dictar tal materia en inglés, y se dicta. Ya. Entonces no se abre un espacio de discusión, sería bueno que se hiciera eso, pero más como que... como con algún grupo focal bien distribuido o, ...que pasaran alguna encuesta en alguna clase con esa pregunta, le gustaría, o qué opina usted si esta clase se dicta en inglés pa' ve que dicen los estudiantes. Pero yo no he hecho ese ejercicio, de preguntarles.	
101	I	Bueno nosotros también en este proyecto vamos a hacer como una encuesta pero mucho más pequeño para los estudiantes para ver su..	
102	P	Si, para que la contesten, porque larga te responden todo, si, si, si y correcto.	
103	I	Si yo sé, larga no. .. Y todo a 5, pero así muy sencillo para ellos, pero... también vamos a pedir la colaboración de los estudiantes para ver su perspectiva también de esa clase. Alguna pregunta más.	
104	I	No. Eso es todo	
105	I	Bueno, profesor muchas gracias por su tiempo.	
106	P	Entonces, yo... hasta ahora que ya comenzamos voy a revisar otra vez la encuesta. La voy a llenar y te la dejo con la secretaria y que les avise para que la vengán a recoger.	
107	I	Ah, bueno, perfecto. Muchas gracias.	

Appendix 3

Teacher's Interview

Date: September 14th, 2015

Director of Computer Science Engineering Program

Interviewer = I

Professor = P

Turn	Participant	Participation	Categories
1	I	Estamos aquí reunidos con el director del departamento de Ingeniería de Sistemas, vamos a ser una entrevista relacionada con Inglés como medio de	

		<p>instrucción.</p> <p>Queremos que nos cuentes por que se dictan estas asignaturas en inglés.</p>	
2	P	<p>Eh, bueno...Digo que en primera instancia cuando este programa se creó, yo no estaba muy de acuerdo con el tema, yo decía, pero para qué, si eso es simplemente un requerimiento impuesto pero eso de verdad no tiene una práctica. Hace como unos dos años, llego una empresa aquí a Barranquilla que se llama Sainz, es una empresa que realiza procesos de consultorías en temas especializados de redes. Y cuando estaban hablando conmigo sobre el perfil de estudiantes o del profesional que estaban buscando, lo primero que me dijeron es “tiene que ser bilingüe”. Incluso el tema técnico se lo solucionamos nosotros. Pero es más fácil enseñar la parte técnica a alguien que ya tenga el dominio del inglés, que alguien muy bueno en la parte técnica dejarle un muy buen inglés que pueda comunicarse directamente. En ese momento fue cuando hizo click!! El tema a ellos y otros tres o cuatro empresarios con los que fui hablando luego que me decían que ya su nicho de negocios está en Estados Unidos, o sea ellos solo tienen clientes americanos. Entonces esa capacidad que el estudiante tenga, de poder conversar de tu a tu y de entender y de que le entiendan con esa contraparte o la otra es crítico para el negocio. Ahí fue donde dije: “No ya, ya, ya si tiene sentido. El estudiante tiene que desarrollar un muy buen nivel de inglés. Y no solo inglés de la calle de pedir una hamburguesa de supervivencia básica. Entonces, por eso fue que tomamos la decisión de encontrar algunos cursos dentro del pregrado que pudieran ser dictados por profesores que tuvieran la experiencia del bilingüismo, que hubieran estudiado en exterior para poder, eh... para poder dictarla.</p>	
3	I	Básicamente como escogieron esas asignaturas?	

4	P	Básicamente fue por los profesores, o sea los profesores que tenían esas habilidades y que estuvieran en semestres, por lo menos por encima de sexto semestre. Que el estudiante hubiera pasado varios niveles, los niveles básicos de inglés para poder entender, por ejemplo tenemos profesores bilingües en segundo, en cuarto, en tercer semestre y los estudiantes todavía, muchos no están preparados para tener un curso completo en inglés. Entonces básicamente fue el nivel y que los profesores tuvieran el tema del bilingüismo desarrollado.	
5	I	Esa decisión de escoger ese profesor, fue consultado con el profesor o fue impuesta?	
6	P	Eh...? Mitá' y mitá'. Había un requerimiento de colocar esos cursos, y los cursos que tenían esos profesores eran los que estaban en esos niveles, entonces digamos que se llegó a un acuerdo con los profesores para que se dictara en esos cursos en inglés.	
7	I	Y como se informan a los estudiantes?	
8	P	<p>En la primera clase, el tema con Sistemas es que somos grupos, somos muchos grupos únicos, somos solo grupos únicos. O sea que, la clase Base de Datos, solo hay una clase Base de Datos que si se dicta en inglés, se dicta en inglés para todos para todos. Obviamente, de pronto va a haber una pregunta sobre el tema, pero si eso generó a veces problemas con los estudiantes, que no querían aceptar la clase en inglés.</p> <p>Por si no se, ahorita hay una pregunta sobre el tema se pueda <i>*profundizar</i>.</p>	*no estoy segura

			si esa es la palabra que dice
9	I	Bueno, Ok, entonces, que ganancia le deja al departamento el hecho de tener esas clases en inglés?	
10	P	Pues la evaluación que hacen las compañías cuando ya están haciendo contratación, ellos también evalúan el nivel de ingles, entonces digamos que básicamente hace apenas como un año o año y medio fue que hemos comenzado a hacer esto, entonces mucho de esos estudiantes todavía no han llegado a... o algunos de esos estudiantes no han llegado. Eh...no hemos medido, no hemos medido directamente el impacto de los cursos. Eh... Entonces nosotros esperamos que si haya tenido un impacto interesante. Algunos estudiantes si, vemos que en entrevistas informales vemos que si han dicho lo interesante que fue la oportunidad de tener una clase en inglés, de su carrera. Eh... de perder el miedo a preguntar. Eh... aunque para otros, según comentarios de estos chicos que que vieron en algunos de sus compañeros, para algunos fue traumático el tema.	
11	I	Bueno, yo quiero antes de seguir un poco. Cómo se articula esta práctica de diseñar estas asignaturas en ingles con las políticas de la universidad de internacionalización? Hay algún tipo de fundamento para articularlas o es simplemente...?	
12	P	No, no. En el plan de desarrollo de Ingeniería o sea hay unos compromisos por departamento con el número de asignaturas para enseñar en inglés.	
13	I	Cuántas asignaturas?	
14	P	Son tres. Tres por departamento.	
15	I	Por semestre o tres por año?	

16	P	<p>Por semestre, semestre. El tema es que bueno, con las demás ingenierías como tienen unas poblaciones mas altas, digamos que ha sido mas manejable porque ellos pueden abrir dos grupos, unos de estos grupos son ingles y estos grupos son en español, entonces solo los que quieren o los que se creen capaces van al curso en ingles. En sistemas ha habido el problema como es grupo único, los estudiantes que tienen algún tipo de resistencia, en algunos momentos han logrado vencer al proceso inicial que era dar la clase en ingles. Entonces en algunos cursos se dejo...en algunos cursos durante el semestre se optó por pasar a español. Por que no había...</p>	
17	K	Y profesores hablan contigo y piden permiso o empiezan a dar su clase en ingles y ya?	
18	I	Los profesores me comentan antes, igual si hay bastante descontento y si los resultados no son buenos de parte de los estudiantes, pues como es un grupo único definitivamente no tenemos la opción. Pero hay veces como este semestre donde los estudiantes solicitaron explícitamente que el curso fuera en inglés.	
19	I	Cual asignatura fue esa?	
20	P	Creo que fue Base de Datos, sexto semestre. Entonces, los estudiantes le pidieron explícitamente al profesor que la dictara en inglés, entonces...digamos que ha habido, no sé, es más como de promociones.	
21	I	Supongo que está corriendo la voz que esa clase se dicta en inglés, supongo.	
22	P	Y que los estudiantes, igual, siempre yo dicto Introducción y dicto Promoción Estado-Objeto, entonces yo hago un tema motivacional desde los primeros semestres recordándoles que la industria está buscando que los ingenieros sean bilingües, que estamos exportando, que queremos hacer doble	

		titulaciones, que también deben tener conocimiento de inglés. Entonces he ido tratando de motivar eso en los estudiantes en los primeros semestres, que espero que eso sea parte de ese resultado positivo. Eh, aunque será un tema para medir y tratar directamente con ellos.	
23	I	Hay algún tipo de acuerdo entre los profesores que dictan la asignatura en ingles, hablan, comparten estrategias, comparten experiencias?	
24	P	Que yo sepa, no. Por lo menos a mí no me han compartido.	
25	I	Con respecta a la asignatura, cuando tú dices que la asignatura es en inglés, que porcentaje de inglés se usa en la clase a nivel de habla, a nivel de evaluación, a nivel de materiales?	
26	P	Evaluación, materiales y por lo menos la primera parte, la primera sesión “lecture” es en inglés. Los estudiantes eventualmente pueden hacer preguntas en español o si definitivamente no entendieron lo que dice el profesor, el profesor puede cambiar a español para clarificar una pregunta, pero...cuando se dicta en ingles la idea es que todo el material, evaluaciones y clase, y preguntas de los estudiantes se en ingles. Es inmersivo.	
27	I	Que dificultades han encontrado en el proceso?	
28	P	Resistencia de los estudiantes. Pues los profesores, como estudiaron en el exterior, fue relativamente fácil para ellos hacer el cambio de material, eh, igual es mucho, la gran mayoría de los materiales, los libros originales y los “papers” son inglés, o sea que básicamente eso facilitó el tema de la creación del curso, pero ha habido resistencia en muchos estudiantes, que básicamente se niegan, se cierra la puerta a tener su clase en ingles.	

29	I	Y que dicen? Cuáles son sus razones?	
30	P	Miedo, que no saben, que no entienden, que no saben hablar, en fin. No es la parte técnica, sino la parte del idioma. La capacidad de ellos de comunicarse y de entender lo que dice el profesor. Se cierran y dicen, “no es que yo no se ingles, no se lo suficiente y no voy a entender lo que el profesor va a decir y no que se dicte en español. Entonces, en este... hubo una misma promoción que básicamente ha sido la que ha estado muy renuente al tema. Habría que de pronto, programar una reunión con ellos para ver qué fue lo que pasó. Por qué?	
31	I	Y si podriamos hacerlo?	
32	P	Si. Podriamos identificarlos y hacer un grupo focal, fácilmente con ellos.	
33	I	El profesor se acaba de comprometer a hacer un grupo focal.	
34	I	Y lo tenemos grabado	
35	I	Yo tengo una pregunta. Hay motivación para los estudiantes, me refiere a que si los profesores ofrecen algún incentivo a los estudiantes a seguir estudiando en inglés? Porque si hay grupos que de pronto disfrutan tener el inglés o hacerse entender ellos como estudiantes en el proceso enseñanza aprendizaje, si, bueno como le preguntamos a otro profesor, si de pronto ellos exponen algo en ingles eso va tener mayor nota o algún incentivo para ellos?	
36	P	Yo lo hago en los primeros cursos, en... o sea, durante la carrera hay algunos profesores que tienen algunas cositas especificas en inglés, por ejemplo, yo le mando a hacer un video en el tema de perspectivas en el sistema, si lo hacen en ingles tienen una bonificación por ejemplo. Y algunos se tiran y el inglés es horrible, pero lo intentan y lo leen, suena mal pero ahí está, por	

		<p>lo menos lo intentan y eso lo que buscamos para eso. Si mal no estoy el profesor.... Los pone a hacer una presentación en segundo en cuarto, una presentación en inglés. Entonces, digamos que hay varios cursos donde hay algún tipo de experiencia con el uso del inglés. En estos cursos, pues definitivamente el curso completo está pensado en inglés. Bueno, incluso en Base de Datos, cuando se pasó a dictar, cuando se pasó a español, el material seguía estando en inglés. Eh... no sé si las evaluaciones, pero por lo menos el (**.....) sigue siendo en inglés. O sea que de alguna manera hay por lo menos un componente, componente de temas en inglés.</p>	<p>**No entiendo lo que dice</p>
37	I	<p>Con respecto, bueno, la enseñanza o la instrucción mediada con el inglés es una de las estrategias que se ha visto que se utiliza más en todos los procesos de internacionalización de las universidades. Qué competencias internacionales crees tú que este tipo de prácticas desarrollan en los estudiantes?</p>	
38	P	<p>Internacionales? Inicialmente conocer los términos técnicos en ingles ya los pone en una, en un punto como deseado a nivel de competitividad en el exterior, que ya pueden hablar de tú a tú y no solo pensar en el término en español que normalmente es mal traducido porque no está la palabra perfecta para tal cosa, entonces, digamos que por ese lado, eh, por ese lado hay una ganancia. Digamos que el tema cultural no se trata mucho porque igual es un tema mucho más técnico, entonces por ejemplo ese tema internacionalización a nivel cultural, no se da. Es más en</p>	

		ponerlos a tono con el lingo técnico en el mundo en inglés. Ese es más, como lo que se busca con este tipo de cursos. Y bueno darles la oportunidad de que, de que rompan el hielo y traten de comunicarse, pierdan el miedo a hablar en inglés en la clase, preparándolos ya para la parte del mundo laboral que los requiera.	
39	I	Ya he escuchado la ganancia de los estudiantes y al departamento. Al profesor hay alguna ganancia? Tú crees que tiene alguna ganancia con dictar su clase en inglés? Además de conseguir el material más fácil.	
40	P	Eventualmente, parece simplemente otra oportunidad que tiene el profesor de seguir practicando su ingles porque no tienen esposa americana, como el director de...	
41	I	Como cierta persona.	
42	P	Eh...Digamos que a veces no cuentan con esa oportunidad de hablar un largo periodo de tiempo de pensar en inglés y de interactuar. Eh, o solamente lo hacen leyendo o de pronto solamente escribiendo pero no la parte oral, entonces de pronto el profesor, es una oportunidad más de comunicarse, de comunicarse en el segundo idioma, de que no se le oxide. Eh...	
43	I	Cuál es el tercer profesor? Tenemos a Zureck y tenemos a Miguel. Quien era el tercer profesor?	
44	P	Augusto Salazar.	
45	I	Sí.	
46	I	Augusto lo tenemos para entrevista. Augusto nos ha sacado el cuerpo. Echarlo al agua con el jefe.	
47	I	Sí, sí. Ya le dije a...pero él no está dictando este semestre en inglés.	
48	P	Él lo dictó. Ese hay que llevarlo a la oficina.	

49	I	Pero él está dictando en español este semestre.	
50	I	Por qué se toman esas decisiones?	
51	P	Los estudiantes.	
52	I	Si se quejan mucho?	
53	P	Si, exactamente, cuando hay mucha resistencia al principio, en definitiva no hay. Por el tema de los grupos únicos. Eso debería eliminarse prontamente por el tema de los de Ser Pilo Paga. Como entraron un número grande. Esperamos que los próximos semestres ya haya por lo menos dos grupos. Entonces y podríamos atacar esto de una manera ya mucho más fácil eliminar el tema o reducir el tema de la resistencia y seguir tratando el tema de la investigación	
54	I	Bueno señor director del Departamento de sistemas muchas gracias por su tiempo y por haber contestado la entrevista	
55	P	A la orden	

Appendix 4

Class Observation Form

FORMATO DE OBSERVACIÓN

Clase 1 Grupos Digital

Asignatura: _____

Hora y fecha: Sept 21/2015

Observador(es): Kathleen Corral
Louise Ky

Profesor: Kenneth Luck

Número de estudiantes: 7

PROFESOR

% de inglés usada por el profesor en la clase. 100% 80% 60% 40% 20% 0%

El profesor utiliza inglés en la clase para:

☒ presentar el tema

☒ hacer ejercicios

☒ hacer preguntas para confirmar el aprendizaje del contenido

☐ da retroalimentación: inglés contenido

☐ otro: _____

Usa el profesor material en la clase. Sí No

El profesor usa las siguientes estrategias de mediación en clase.

☒ Parafrasea conceptos e ideas centrales. ☐ Utiliza ayudas visuales y gráficos

☒ Entrega glosarios ☐ Entrega guías de estudio

☐ Recurre al español ☐ Hace preguntas sobre el tema enseñado

☒ Da ejemplos prácticos ☐ Otros writes on the board vocabulary class.

One way class. Teacher talks all the time. catches & flip-flops
- repeats the explanation
- answers students' doubts

ESTUDIANTES

% de inglés usado por los estudiantes en la clase. 100% 80% 60% 40% 20% 0%

El estudiante usa inglés en la clase para:

☒ hacer preguntas sobre el tema

☒ contestar preguntas

☐ hacer ejercicios

☐ interactuar con pares

pay close attention and take notes.

El estudiante usa español en la clase para:

☒ hacer preguntas sobre el tema

☒ contestar preguntas

☐ hacer ejercicios

☐ interactuar con pares

El estudiante se comunica en inglés:

Estudiante	Efectivamente	Con dificultad pero transmite su mensaje	Usa una mezcla de inglés y español	No puede comunicarse en inglés y lo hace en español
<u>only 1 of interaction</u>				
1	<u>made a Q</u>			
2		<u>✓ (Quite well)</u>		
3	<u>✓</u>			
4				
5				
6				
7				
8				
9				

COMENTARIOS:

Appendix 5

Class observation Form

FORMATO DE OBSERVACIÓN

Asignatura: Diseno Digital
 Hora y fecha: 3:30 - 5:12 / 21-sep-15
 Observador(es): Kathleen Carralles

Profesor: Eduardo Zuruk
 Número de estudiantes: 8 students

PROFESOR

% de inglés usada por el profesor en la clase. →
 100% 80% 60% 40% 20% 0%

El profesor utiliza inglés en la clase para:
☒ presentar el tema
☐ hacer ejercicios
☒ hacer preguntas para confirmar el aprendizaje del contenido - any questions? ok? clear?
☐ da retroalimentación: inglés contenido
☐ otro:

Usa el profesor material en la clase. ☐ Sí ☐ No

El profesor usa las siguientes estrategias de medicación en clase.
☐ Parafrasea conceptos e ideas centrales. ☒ Utiliza ayudas visuales y gráficos charts + graphic representations
☐ Entrega glosarios ☐ Entrega guías de estudio
☐ Recurre al español ☐ Hace preguntas sobre el tema enseñado
☐ Da ejemplos prácticos ☐ Otros Software (which visually shows info.)

ESTUDIANTES

% de inglés usado por los estudiantes en la clase. →
 100% 80% 60% 40% 20% 0%

El estudiante usa inglés en la clase para:
☒ hacer preguntas sobre el tema
☐ contestar preguntas
☐ hacer ejercicios
☐ interactuar con pares

El estudiante usa español en la clase para:
☐ hacer preguntas sobre el tema
☐ contestar preguntas
☐ hacer ejercicios
☒ interactuar con pares

El estudiante se comunica en inglés:

Estudiante	Efectivamente	Con dificultad pero transmite su mensaje	Usa una mezcla de inglés y español	No puede comunicarse en inglés y lo hace en español
1	✓			
2	✓			
3	✓			
4	✓			
5				
6				
7				
8				
9				

COMENTARIOS: Sits. nod heads / They take notes. / There was not much interaction with 4/5

Appendix 6

Class Observation Form

Ob. 2

FORMATO DE OBSERVACIÓN

Asignatura: Diseño Digital Profesor: Eduardo Zurek
 Hora y fecha: 3:30-4:30 / 23 Sep 2015 Número de estudiantes: 3
 Observador(es): Kathleen Conrakes

PROFESOR

% de inglés usada por el profesor en la clase. 100% 80% 60% 40% 20% 0%

El profesor utiliza inglés en la clase para:

☒ presentar el tema
☒ hacer ejercicios
☐ hacer preguntas para confirmar el aprendizaje del contenido
☐ da retroalimentación: inglés contenido
☐ otro:

Usa el profesor material ^{en inglés} en la clase. Sí No truth tables

El profesor usa las siguientes estrategias de mediación en clase.

☐ Parafrasea conceptos e ideas centrales. ☒ Utiliza ayudas visuales y gráficos
☐ Entrega glosarios ☐ Entrega guías de estudio
☐ Recurre al español ☐ Hace preguntas sobre el tema enseñado
☒ Da ejemplos prácticos (banners) ☐ Otros _____

ESTUDIANTES

% de inglés usado por los estudiantes en la clase. 100% 80% 60% 40% 20% 0%

El estudiante usa inglés en la clase para:

☐ hacer preguntas sobre el tema
☒ contestar preguntas
☐ hacer ejercicios
☐ interactuar con pares

El estudiante usa español en la clase para:

☐ hacer preguntas sobre el tema
☐ contestar preguntas
☐ hacer ejercicios
☒ interactuar con pares

El estudiante se comunica en inglés: to make comments affirming what I is saying. (completes the sent. of the T w/ the teacher w/ or w/out)

Estudiante	Efectivamente	Con dificultad pero transmite su mensaje	Usa una mezcla de inglés y español	No puede comunicarse en inglés y lo hace en español
1	<input checked="" type="checkbox"/> (ques hora)			
2	<input checked="" type="checkbox"/> (espero)			
3	<input checked="" type="checkbox"/> (espero)			
4	<input checked="" type="checkbox"/> corrector about mistake			
5				
6				
7				
8				
9				

COMENTARIOS: sts. spoke very technical interventions (bs that b, b1...)

Appendix 7

Class Observation Form

FORMATO DE OBSERVACIÓN

Asignatura: Base de Datos Profesor: Miguel Jimeno
 Hora y fecha: 24/09/2018 / 3:30-5:30 Número de estudiantes: 15
 Observador(es): Kathleen Cortales

PROFESOR

% de inglés usada por el profesor en la clase. 100% 80% 60% 40% 20% 0%

El profesor utiliza inglés en la clase para:

☒ presentar el tema
☐ hacer ejercicios Give directions for the activities
☐ hacer preguntas para confirmar el aprendizaje del contenido
☐ da retroalimentación: inglés contenido
☒ otro: answer questions (alternated in English)

Usa el profesor material en la clase. Sí No

El profesor usa las siguientes estrategias de mediación en clase.

☒ Parafrasea conceptos e ideas centrales. ☐ Utiliza ayudas visuales y gráficos
☐ Entrega glosarios ☐ Entrega guías de estudio
☐ Recurre al español para question ☐ Hace preguntas sobre el tema enseñado
☐ Da ejemplos prácticos ☐ Otros _____

ESTUDIANTES

% de inglés usado por los estudiantes en la clase. 100% 80% 60% 40% 20% 0%

El estudiante usa inglés en la clase para:

☐ hacer preguntas sobre el tema
☐ contestar preguntas
☒ hacer ejercicios a few sts spoke
☐ interactuar con pares their groups in Engl.

El estudiante usa español en la clase para: 5 groups

☒ hacer preguntas sobre el tema
☐ contestar preguntas
☒ hacer ejercicios
☒ interactuar con pares

El estudiante se comunica en inglés:

Estudiante	Efectivamente	Con dificultad pero transmite su mensaje	Usa una mezcla de inglés y español	No puede comunicarse en inglés y/o hace en español
1				<input checked="" type="checkbox"/>
2	<input checked="" type="checkbox"/>			
3	<input checked="" type="checkbox"/>			
4	<input checked="" type="checkbox"/>			
5	<input checked="" type="checkbox"/>			
6	<input checked="" type="checkbox"/>			
7	<input checked="" type="checkbox"/>			
8				
9				

COMENTARIOS:

Appendix 8

Class Observation Form

Observation 3

FORMATO DE OBSERVACIÓN

Asignatura: *Base de Datos*
 Hora y fecha: *Sp 24-3:30-5:28*
 Observador(es): *Xazim Santiago*

Profesor: *Riguel Jimenez*
 Número de estudiantes:

PROFESOR

% de inglés usada por el profesor en la clase. 100% 80% 60% 40% 20% 0%

El profesor utiliza inglés en la clase para:
☒ presentar el tema - *Overview / previous lesson*
☐ hacer ejercicios
☐ hacer preguntas para confirmar el aprendizaje del contenido
☐ da retroalimentación: inglés contenido
☐ otro:

Publicación en Blackboard en Español

Usa el profesor material en la clase. ☒ Sí ☐ No

El profesor usa las siguientes estrategias de medicación en clase.
☐ Parafrasea conceptos e ideas centrales. ☐ Utiliza ayudas visuales y gráficos *PP*
☐ Entrega glosarios ☐ Entrega guías de estudio
☐ Recurre al español ☐ Hace preguntas sobre el tema enseñado
☐ Da ejemplos prácticos ☐ Otros _____

ESTUDIANTES

% de inglés usado por los estudiantes en la clase. 100% 80% 60% 40% 20% 0%

El estudiante usa inglés en la clase para:
☐ hacer preguntas sobre el tema
☐ contestar preguntas
☐ hacer ejercicios
☐ interactuar con pares

El estudiante usa español en la clase para:
☐ hacer preguntas sobre el tema
☐ contestar preguntas
☐ hacer ejercicios
☒ interactuar con pares

El estudiante se comunica en inglés:

Estudiante	Efectivamente	Con dificultad pero transmite su mensaje	Usa una mezcla de inglés y español	No puede comunicarse en inglés y lo hace en español
1 <i>A</i>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
2 <i>.</i>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
3	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
4				<input checked="" type="checkbox"/>
5				<input checked="" type="checkbox"/>
6				<input checked="" type="checkbox"/>
7				<input checked="" type="checkbox"/>
8				
9				

COMENTARIOS: *El profesor responde la pregunta en los grupo en el idioma que se hace la pregunta.*

Appendix 9

Class Observation Form

FORMATO DE OBSERVACIÓN

Asignatura: Base de Datos. Examen Profesor: Miguel Jimeno
 Hora y fecha: Sep 23/2015 7:30 Número de estudiantes: 13
 Observador(es): Nazira Santiago

PROFESOR

% de inglés usada por el profesor en la clase. 100% 80% 60% 40% 20% 0%

El profesor utiliza inglés en la clase para:

- ☒ presentar el tema PP
- ☒ hacer ejercicios (in examples)
- ☐ hacer preguntas para confirmar el aprendizaje del contenido (Any questions?)
- ☐ da retroalimentación: inglés contenido
- ☒ otro: Explain Activities to be done in English.

Usa el profesor material en la clase. Sí No

El profesor usa las siguientes estrategias de mediación en clase.

- ☐ Parafrasea conceptos e ideas centrales.
- ☒ Utiliza ayudas visuales y gráficos PP drawings on board
- ☐ Entrega glosarios
- ☐ Entrega guías de estudio
- ☐ Recurre al español
- ☐ Hace preguntas sobre el tema enseñado
- ☒ Da ejemplos prácticos
- ☐ Otros Reminds st previous lessons.

ESTUDIANTES

% de inglés usado por los estudiantes en la clase. 100% 80% 60% 40% 20% 0%

El estudiante usa inglés en la clase para:

- ☒ hacer preguntas sobre el tema
- ☐ contestar preguntas
- ☐ hacer ejercicios
- ☐ interactuar con pares
- ☐ Read instructions to solve activities in English.

El estudiante usa español en la clase para:

- ☒ hacer preguntas sobre el tema
- ☐ contestar preguntas
- ☒ hacer ejercicios
- ☒ interactuar con pares

El estudiante se comunica en inglés:

Estudiante	Efectivamente	Con dificultad pero transmite su mensaje	Usa una mezcla de inglés y español	No puede comunicarse en inglés y lo hace en español
1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
4	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
5	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
6				
7				
8				
9				

COMENTARIOS: 3 Questions during the topic presentation (in English).
the rest of the questions during solving the exercise.

Appendix 10

Student's Questionnaire

ENCUESTA DE INVESTIGACIÓN

Apreciado Estudiante: El fin de esta encuesta es la recolección de datos relevantes en el proceso de investigación sobre el uso del inglés para enseñar el contenido de una asignatura en los programas de pregrado en la Universidad del Norte.

Nombre de la asignatura:				
Profesor:				
1. ¿Por qué crees que esta asignatura se dicta en inglés?				
	Completamente de acuerdo	De acuerdo	En desacuerdo	Completamente en desacuerdo
2. Mi nivel de lengua es el apropiado para tomar esta clase en inglés.				
3. En la clase se usa el inglés el 100% del tiempo de la clase.				
4. Comprendo claramente los conceptos.				
5. Mi nivel de inglés ha mejorado con esta clase.				
6. Las evaluaciones y la retroalimentación se hacen en inglés.				
7. Mi nivel de inglés ha sido un impedimento para el aprendizaje de los contenidos.				
8. Tomar asignaturas de contenido en inglés debe ser parte de la formación de los profesionales en esta universidad.				
9. Esta asignatura contribuye al desarrollo de mis competencias internacionales.				
10. ¿Qué ganancia te deja tomar esta asignatura en inglés?				
11. ¿De las siguientes actividades cuáles realiza el profesor en clase? (Marque con una X)				
<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Parafrasea conceptos e ideas centrales <input type="checkbox"/> Entrega glosarios <input type="checkbox"/> Recurre al español <input type="checkbox"/> Da ejemplos prácticos </div> <div> <input type="checkbox"/> Utiliza ayudas visuales y gráficos <input type="checkbox"/> Entrega guías de estudio <input type="checkbox"/> Hace preguntas sobre el tema enseñado <input type="checkbox"/> Otros _____ </div> </div>				
12. ¿Cómo te preparas para recibir una clase en inglés?				

****Al diligenciar este formato, estás dando autorización para que los datos sean usados para fines investigativos. Estos datos serán tratados de forma confidencial y anónima.**